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**PUBLIC POLICY AND UNEMPLOYMENT
IN FRANCE, 1920-1938**

**Thesis submitted for the qualification
of Doctor of Philosophy**

by

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Abstract

This study is an attempt to highlight the relative importance of unemployment in France in the 1930s, despite the very low rate of aggregate unemployment. It has been shown that even if one accepts the official unemployment figures, they disguised a very large structural imbalance within the unemployed group. There was great variation in the incidence of unemployment among the sub-groups of the population and the economy, and the duration of unemployment for those affected was very high, even by international standards.

This preponderance of long-term unemployment necessitated government action, of which three policies are studied in this Thesis: the public works programmes of 1932-1936, the repatriation of foreign workers and the 40-hour week. Using both archival and quantitative analysis, examination of the effectiveness of the policies concerned in reducing unemployment has been undertaken. The results show that the government's anti-unemployment policies did reduce unemployment, but their effectiveness was compromised by the hostility of employers to the legislation regarding foreign workers and hours of work and by the government's own policy of remaining on the gold standard. The battles over the implementation of these measures are as important as the measures themselves, and raise questions about the ability of governments to affect the workings of the labour market when it does not directly implement the policies itself.

Abbreviations used in the Notes

A.N.	Archives Nationales
C.A.C.	Archives Nationales, Centres de Archives Contemporaines
J.O.	Journal officiel de la République française: Lois et décrets
J.O. Ch.	Journal officiel de la République française, annales de la Chambre des Députés: Débats parlementaires
J.O. Doc. Admin.	Journal officiel de la République française: Documents administratifs
J.O. Doc. C.	Journal officiel de la République française, annales de la Chambre des Députés: Documents parlementaires
J.O. Doc. S.	Journal officiel de la République française, annales du Sénat: Documents parlementaires
J.O. Sen.	Journal officiel de la République française, annales du Sénat: Débats parlementaires
PP.	Archives de la Préfecture de Police de Paris

INTRODUCTION

The unemployment of the 1930s in France has been little studied outside of the French literature. The general rule appears to be that the greater the degree of unemployment, the greater the academic interest. Studies of British and American unemployment of the 1930s have reached near-saturation point and in the last decade, there has been a growing literature on the German unemployment experience of the 1930s. With regard to France, the commitment to the Gold Standard and the Popular Front have been popular subject areas, but not unemployment.

In retort, a central aim of this Thesis has been to throw some light on the true nature of unemployment in France. That does not mean to say that we try to estimate the 'real' unemployment rate, a procedure that is fraught with conceptual and statistical difficulties. Rather, we seek to look beyond the aggregate unemployment statistic as an alternative means of highlighting its inadequacies for international comparison.

However, this is only the first stage of a wider strategy to investigate and evaluate the French response to the Depression. In this area as well, there is a considerable silence. As Schwarz (1993) concludes:

"Until more research has been done on the French economy during the 1930s, historians will not be in a position to analyse the impact of government policies with any degree of precision" (p.110).

The other aim of this Thesis is to make some insights into the impact on the economy of a specific set of French public policies; namely, those introduced as a means of

combating unemployment. By necessity, this analysis will concentrate on the policies adopted in the 1930s, but where possible this will be generalised to the rest of the interwar period as well.

The appraisal of government anti-unemployment policies is undertaken in two separate chapters using two separate methodologies: one essentially archival, the other statistical. If government policy was simply formulated and applied without any deviation from the original statement of intent, the statistical approach would be sufficient to analyse the effects of that policy, given the availability of adequate data. If, on the other hand, rhetoric differed from reality and the policy that was passed by the legislators was implemented by agents other than the government, such as employers, in a form different to that intended by the government, if implemented at all, the statistical approach would not be able to capture the political processes that altered the effectiveness of the policy introduced.

In the area of public policy where it is not so much the policy itself, but the way in which it is implemented that is important, such a dual approach seems appropriate. As Beth Simmons eloquently summarises:

"Overall, combining methodologies provides a parallax on the problem that is difficult to achieve with a single approach. To choose one method to the exclusion of the other is like closing one eye and trying to make judgements about distance: it is easy to lose perspective. The most convincing conclusions will ultimately be those on which the regressions agree with the archives" (Simmons, 1994, p.14).

Simmons applies this dual methodology to her study of foreign economic policy. Indeed, this approach appears to be suited to the analysis of all forms of government policy.

But was public policy with respect to unemployment important? If unemployment was unimportant, then surely so must have been government measures? The supposed unimportance of unemployment is highlighted in Table 1.1. The French unemployment rate is the lowest of all six countries in the 1930s, while the labour shortage is also evident from these figures in the 1920s.

However, as mentioned earlier, the provision of 'true' unemployment rates is fraught with difficulties and conjectures. The French series in Table 1.1 which Eichengreen and Hatton take from Galenson and Zellner (1957) is plagued with such problems. As Galenson and Zellner themselves remarked:

It is clear that the task of constructing unemployment rates for France is not easy. Any derived percentages must, from the nature of the data, be subject to a large degree of uncertainty. The percentages presented [above] represent crude estimates of the level of unemployment among wage and salary earners in manufacturing, construction and mining" (p. 522).

Crude estimates they were. Reference to Villa (1993, series PDRE, p.445) and to Chapter Two of this Thesis reveals that the extrapolated unemployment rates for the inter-census years (1932-1935) are over-estimated by about 50 per cent. This would reinforce the conclusion that unemployment was particularly low in France in the 1930s.

It is not an objective of this Thesis to investigate the reasons for the particularly low level of unemployment, but one point is worth exploring: there were three definitions of 'unemployment' used for measurement purposes, of which none could be said to be free from difficulties. As Alfred Sauvy was to write in 1938:

Table 1.1 Industrial Unemployment Rates by Country, 1920-1938

	France	Belgium	Germany	Netherlands	UK	US
1920	-	-	3.8	5.8	3.2	8.6
1921	5.0	9.7	2.8	9.0	17.0	19.5
1922	2.0	3.1	1.5	11.0	14.3	11.4
1923	2.0	1.0	10.2	11.2	11.7	4.1
1924	3.0	1.0	13.1	8.8	10.3	8.3
1925	3.0	1.5	6.8	8.1	11.3	5.4
1926	3.0	1.4	18.0	7.3	12.5	2.9
1927	11.0	1.8	8.8	7.5	9.7	5.4
1928	4.0	0.9	8.6	5.6	10.8	6.9
1929	1.0	1.3	13.3	2.9	10.4	5.3
1930	2.0	3.6	22.7	7.8	16.1	14.2
1931	6.5	10.9	34.3	14.8	21.3	25.2
1932	15.4	19.0	43.8	25.3	22.1	36.3
1933	14.1	16.9	36.2	26.9	19.9	37.6
1934	13.8	18.9	20.5	28.0	16.7	32.6
1935	14.5	17.8	16.2	31.7	15.5	30.2
1936	10.4	13.5	12.0	32.7	13.1	25.4
1937	7.4	11.5	6.9	26.9	10.8	21.3
1938	7.8	14.0	3.2	25.0	12.9	27.9

Note: The figures in the table above are expressed as percentages.

Source: Eichengreen and Hatton (1988, Table 1.1, p.6).

"The elasticity of the word is such that, dependent upon the definition used, the number of unemployed can vary from 200,000 to 2 million" (*L'Europe Nouvelle*, 7 January 1938).

It would seem appropriate to consider these different definitions.

The *chômeur secouru* was the unemployed person receiving unemployment assistance. It is the most restrictive of the three definitions because of the following requirements to receiving assistance:¹

¹ The regulations for the *chômeurs secourus* and the *sans emploi* are taken from Salais (1988, pp.252-53,256).

- i) He had to live in a town of at least 5,000 inhabitants.
- ii) He had to submit a claim establishing both joblessness and involuntary unemployment due to lack of suitable work. Specifically, he had to furnish proof that he had been working for a living, that he had received a regular wage for at least six months and that he had received a notice of redundancy from his last employer.
- iii) He had to undergo a waiting period of at least three days before receiving assistance.
- iv) He had to demonstrate a desire to work.
- v) He had to be willing to accept any 'suitable' employment.
- vi) He could not be in receipt of a pension or any other form of benefit.
- vii) His 'idleness' could not be due to an industrial dispute or to temporary or permanent disability.
- viii) If a foreigner, he had to satisfy additional conditions laid down by international agreements, generally concerning reciprocal labour agreements between France and the governments of the foreign nationals

The basis for the administration of relief was the family, not the individual. So merely the head of the household was entitled to receive relief, the level of which was adjusted for the dependants he had. As a result, young unemployed workers living with their parents did not receive assistance and neither did married women if the head of the household worked and earned enough to elevate the household income above the minimum threshold level. In both cases, neither were counted as *chômeurs secourus*. In addition, from 1931, older workers were removed from this system of assistance to receive aid from other forms of assistance.

If the *chômeurs secourus* unemployment series is the most restrictive, the least restrictive is the *sans emploi* series. The series is derived from the population censuses and is the best available indicator of the level of unemployment. However, it was recorded only once in every five years and it still placed some rather tight regulations

on the unemployed worker:

- i) He had to give his occupation and the name and address of his employer. If he failed to do any of the above he was not counted as a *sans emploi*. Thus artisans, farm-workers, the self-employed, etc. could not be *sans emploi* unemployed.
- ii) He had to have been out of work for at least eight days, else he was counted as still employed.
- iii) If he had been without work for two years, he was regarded as economically inactive. For those over the age of sixty years, the duration was reduced to one year before he was deemed to be out of the labour force.

The final unemployment series is that of the *demandeurs d'emploi*, those people who had placed a request for work at the public employment exchanges. As it became necessary for the *chômeurs secourus* to place such a request for work at the public employment exchanges before becoming eligible for assistance, the *demandeurs d'emploi* series is superior to the *chômeurs secourus* series. As every *département* had to have at least one public employment exchange within it, regardless of the size of the towns, and there were no regulations forbidding the young, the old, the foreigners or women from requesting work at the public employment exchanges, the series is commensurably superior to the *chômeurs secourus* series. It is therefore the preferred series to be used in Chapter Two whenever the *sans emploi* series is not available.

As the French industrial unemployment rate in Table 1.1 is based on the *sans emploi* series when available, there would appear to be no reason to upwardly-adjust the figures. The existence of three different unemployment series, though, could result in confusion to policy-makers over the exact level of unemployment. This is something to which we will return later in the Thesis.

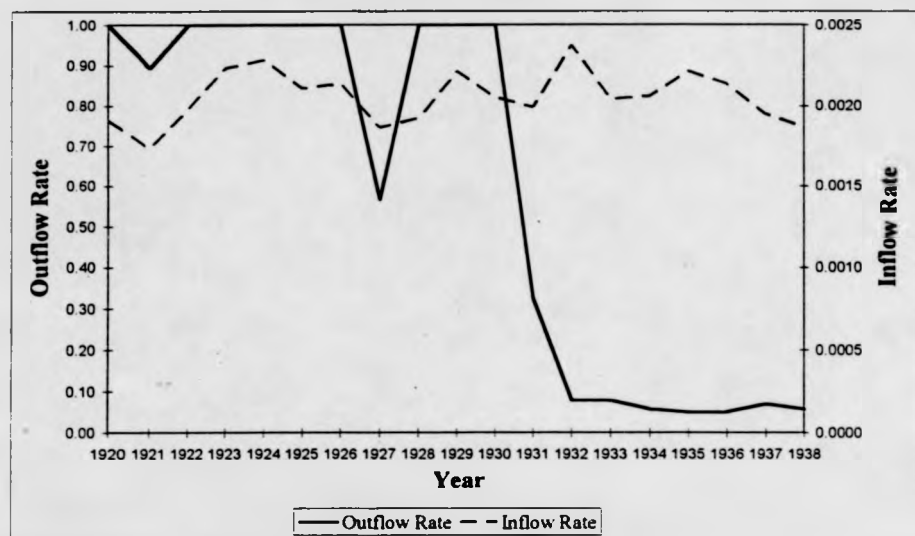
Before we proceed to a more disaggregated analysis of unemployment in the next Chapter, it is worth noting from Table 1.1 that the unemployment crisis began later in France than elsewhere. Given that we now have a reasoned and stated preference for the employment exchange data (outside of the population census observations), we could now use this source to analyse further the timing of the onset of the unemployment crisis.

This can be done with reference to the inflow rate (the probability that a given worker will enter unemployment in any given week) and the outflow rate (the probability that a given unemployed person will exit unemployment for employment in any given week).

It is immediately apparent from Figure 1.1 that the onset of the unemployment crisis in France was almost entirely associated with a reduction in the outflow rate. Despite the small rise in the inflow rate in 1932, the basic result from Figure 1.1 is that once the economic crisis had begun in 1931, it was more a problem of limited job creation than of job destruction.

It appears rather strange that the outflow probability is constrained to unity for much of the 1920s. The outflow rate is calculated as the number of outflows (job placements) per week divided by the number of people remaining unemployed at the end of that week. With the number of unemployed extremely low in the 1920s, see Chapter Two for further details, there was a very rapid turnover of unemployed labour. It may be argued that this was a product of under-measurement of unemployment, and this would affect this ratio, but it would still not detract from a

Figure 1.1 French Inflow and Outflow Rates, 1920-1938



Source: *Bulletin du Marché du Travail*, 1920-1939

very high outflow rate.

With regard to the inflow rate, it is of the expected magnitude with 0.2% of the workforce likely to be made unemployed in any week. Consequently no more than 10% of the workforce is expected to have experienced unemployment in any year. It is worth re-stating that it seems rather surprising that there is no greater cyclical variation in the inflow rate.

There ends our time with highly aggregated data. Some very general conclusions can be drawn from this data: French unemployment was low by international standards; the unemployment crisis began later than elsewhere; it was the reduction in exit probabilities that was the driving force behind the rising stock of unemployment; and as a result, the duration of French unemployment is expected to be fairly long relative to the rate of unemployment.

In the next Chapter we re-examine these issues of unemployment incidence and duration, but with more disaggregated data. The intention is to identify those groups of workers and those sections of the economy most at risk of unemployment at which public policy should have been targeted. The examination of public policy and unemployment is undertaken in Chapters Three and Four. The former investigates the formation of policy and its implementation, while the latter attempts to estimate statistically the effectiveness of those policies. General conclusions are presented in the final chapter. By that stage, we will know much more about unemployment in France in the interwar years and whether the government played any role in producing the particularly low unemployment rate.

THE NATURE OF INTERWAR UNEMPLOYMENT

So far, we have established that although the stock of unemployment in France was rather low by international standards, the flows into and out of unemployment in the 1930s did follow the international norm.¹ That is, after the large inflow of workers into unemployment at the start of the economic crisis, it was the reduction in their probability of leaving the unemployed state, rather than a continuation of the high rate of job loss, that yielded the rising and persistent unemployment of the 1930s.

The distinction between flows and stocks of unemployment is important for public policy. If the stock of unemployment had been characterised by a high flow, and thus low duration, the welfare costs would have been much lower than in the opposite case; rapid turnover of jobs should increase the allocative efficiency of labour.² On the other hand, the reverse problem of lack of employment opportunities for the unemployed would have provided an avenue through which the public authorities could influence the aggregate unemployment rate. This may have been through the creation of employment opportunities or by increasing the search effectiveness of the unemployed through the operations of the public employment exchanges. Government initiatives that sought to achieve both these aims are discussed in the next Chapter, though it is the work creation schemes that have been the most

¹ See Thomas (1988) and Corbett (1991) for an explicit analysis of unemployment flows in Britain and Germany, respectively, and Eichengreen and Hatton (1988) for a more general, and international, review of unemployment flows/duration in the 1930s.

² The welfare costs of unemployment may be much larger, though, if the turnover of (un)employment states is confined to a small proportion of the labour force who experience recurrent unemployment spells. Allocative efficiency gains are made only if the worker leaves unemployment to find work of a

celebrated and so receive more attention.

However, both strategies require much more information about the structure of unemployment than that provided by aggregate statistics of unemployment stocks and flows. A plentiful supply of unemployed construction workers is a prerequisite for a successful policy of public works programmes to reduce unemployment, as is a large stock of unemployed foreign workers for any policy of 'exporting unemployment'. The identification of industries/regions where labour is in demand is necessary for the matching of workers to vacancies, as is an appraisal of the susceptibility of the unemployed to re-train for new professions or to migrate.

Such disaggregated data on the stocks and flows of unemployment is available from the weekly publication *Le Bulletin du Marché du Travail* for the whole of the interwar period, and it is this previously under-utilised source that will provide most of the data to be used in this Chapter. This information is therefore not only useful in providing a descriptive background to the issue of French unemployment between the wars, but is also essential in any evaluation of the appropriateness of the various public policies put forward to combat unemployment in the 1930s.

This data on the French labour market is supplemented in particular by four studies of the unemployed at various stages during the 1930s. The first two were Ministry of Labour surveys of the unemployed by age and industry: the first was in 1935 on the *demandeurs d'emploi*, while the second was in 1938/39 on the *chômeurs secourus* of the Paris region. The final two studies drew samples from the unemployment files of

more permanent nature, albeit in a different firm, industry or region.

the *chômeurs secourus*: the first was conducted by the ISRES in the late 1930s under the direction of Gabrielle Letellier and concerned unemployment in Paris, Lyons and Mulhouse from 1931 to 1935; the second was undertaken by the INSEE in the early 1980s under the direction of Robert Salais and investigated Parisian unemployment from 1930 to 1939. Taken together, these five sources provide a rich source of disaggregated information on both the stocks and flows of unemployment in interwar France, albeit primarily for the 1930s.

The remainder of this chapter is split into three sections. In the next, the incidence of unemployment is addressed with respect to various factors: by sex, age, industry and by region. This repartition is then replicated in the following section on the flows of unemployment. Finally, as a key policy to be analysed in this thesis is the repatriation drive of the early 1930s, the remaining section looks at the differential unemployment experience of the foreign and the French workers.

2.1 The Incidence of Unemployment

The first step in any policy designed to combat unemployment is to identify the target groups, that is, the subgroups of the population who were most at risk of being unemployed. Accordingly, this section presents estimates of the incidence of unemployment across such population subgroups.

However, a note of caution is warranted before proceeding. As outlined in Chapter One, there existed three separate measures of the stock of unemployment in France

during the interwar years: the *sans emploi*, the *demandeurs d'emploi*, and *chômeurs secourus*. Each of these measures under-recorded the 'true' level of unemployment. This problem was particularly acute in the 1920s for the latter two measures, while the most representative of those on offer, the *sans emploi*, was recorded only during the quinquennial population censuses.

Much of the descriptive work in this section therefore uses the *demandeurs d'emploi* series which is markedly superior to the *chômeurs secourus* series.³ This measurement problem resembles that of the 'Insured Unemployed' series for Britain in the interwar period,⁴ though this series tended to overstate the unemployment rate, which is the reverse of the problem here. Some caution should therefore be used in comparing the unemployment rates reported in this section with those on similar population subsamples of different countries.

Similarly, caution should also be used in comparing the levels of unemployment in the 1920s and to those in the 1930s. Villa (1994) shows that the interwar period can be split into two distinct periods with regard to the representativeness of the *demandes d'emploi* series: 1920-1930 and 1931-1938. In the first period the *demandes d'emploi* number less than ten per cent of the *sans emploi* found on the same date by the population censuses, whereas this ratio rises to over sixty per cent by the 1936 census. Secondly, the *demandes d'emploi* series is only weakly negatively correlated with GDP during the years 1920-1930,⁵ while the relationship is more robust from 1931

³ See the discussion in Chapter One.

⁴ See Garside (1980) for a full discussion of the various measures of unemployment in Britain since the mid-nineteenth century.

⁵ The *chômeurs secourus* series is actually positively correlated with GDP in this period.

onwards.⁶

This result may, in part, be explained by the differing flexibility of the labour market in the 1920s and the 1930s: the annual migratory flows of foreign workers were 71% higher in the first period than in the second.⁷ However, the measurement problems identified with the *demandes d'emploi* series in the previous Chapter would also have influenced this result. This matter is taken up further in the next Chapter when the need for solely national aggregated unemployment data allows us to use Villa's corrected series.

Nevertheless, the usefulness of this Chapter depends on the availability of disaggregated unemployment series. For this purpose and despite the above reservations, the *demandes d'emploi* series can still be regarded as a reasonably accurate indicator of the movement of unemployment within each of the two sub-periods and, to a certain degree, of the distribution of unemployment across each of the sub-groups in question. We can now proceed with caution.

2.1.1 Sex

The incidence of unemployment across the two sexes is presented in Table 2.1 below. The first column for each group indicates the unemployment rate obtained from the population census figures, while the latter two report the number of unemployed

⁶ Note that Villa (1994) presents an alternative unemployment series to correct this interpolation problem and this series is used in Chapter Four (discussed in the Data Appendix). However, this is an aggregate unemployment series and so is inappropriate for the analysis in this Chapter.

⁷ There was an annual average of 220,115 controlled migratory inflows and outflows of foreign workers in the period 1920-1930 and an average of 129,000 in the period 1931-1938. *Bulletin du*

Table 2.1 Unemployment Rates by Sex

	MALE			FEMALE		
	<i>Sans Emploi</i> (%)	<i>Sans Emploi</i> (‘000s)	<i>Demandeurs d'Emploi</i> (‘000s)	<i>Sans Emploi</i> (%)	<i>Sans Emploi</i> (‘000s)	<i>Demandeurs d'Emploi</i> (‘000s)
1920			10			5
1921	4.01	325	18	5.46	213	9
1922			9			4
1923			7			3
1924			7			3
1925			8			4
1926	1.98	169	8	2.00	75	4
1927			32			15
1928			10			5
1929			6			4
1930			9			5
1931	3.52	308	58	3.74	145	18
1932			233			75
1933			237			70
1934			296			80
1935			364			100
1936	7.75	625	363	6.84	239	108
1937			268			108
1938			285			120

Sources: *Sans Emploi*: France, *Résultats statistiques du recensement de la population*, vol. 1, no.4, pp.44-55 (1921); vol.1, no.4, pp.42-47 (1926); vol.1, no.4, pp.34-39 (1931); vol.1, no.4, pp.36-41 (1936); *Demandeurs d'Emploi*: France, *Bulletin du Marché du Travail*, 1920-1939.

according to the unemployment definition used. The calculation of unemployment rates for the *demandes d'emploi* series is not possible as data does not exist on the division of aggregate employment by sex. Nevertheless, the presentation of the two unemployment series in levels does highlight the change in their ratios from the 1920s to the 1930s.⁸

Marché du Travail, 1920-1939.

⁸ They are not strictly comparable as the *demandes d'emploi* figures are annual averages, while the *sans emploi* were measured during the population censuses in the first week of March when unemployment was typically above the annual average.

It seems remarkable that unemployment rates were higher for women than for men for all but the 1936 census. This is a result found in none of the other countries surveyed in the Eichengreen and Hatton volume *Interwar Unemployment in International Perspective*. However, this appears to be more a product of female-intensive industries being more prone to unemployment in the era before the Depression than any systematic discrimination of female workers across all professions. The prime example is the clothing industry in which four out of every five workers were female (see the Appendix), but which failed to reach its 1913 output level throughout the whole of the interwar period.⁹

Despite the female unemployment rate being higher than the male unemployment rate during the whole pre-Depression era (1920-1930), there were more men than women within the unemployment stock. Indeed, as Table 2.1 shows, this proportion remained constant at two-thirds of the total stock (of *demandeurs d'emploi*) throughout the period 1920-1930. This proportion then rises to a plateau of 78% for the Depression years of 1931-1936, before falling back down to 70% for the years 1937-1938. Men appear to have borne the brunt of the heavy unemployment of the 1930s, though from the above discussion it would be hard to draw any strong inferences from this without reference to the industries most affected by unemployment.

⁹ Villa (1993, series IP64, p.458). The decline of the clothing industry can also be gauged by the 35% reduction of personnel from the 1906 census to that of 1931. Asselain (1984, pp.74-75) ascribes this to the increasing concentration of the industry (in particular, the disappearance of home-workers) and a stagnation of the export market: the volume of clothing exports fell by 52% between 1913 and 1938 (Bettelheim, 1947, p.74). However, he ignores the effects of the First World War: production fell by 40% from 1913 to 1919, a deficit that had almost been made up by 1928 before decline set in again (Villa, 1993, series IP64, p.458), despite the 14% reduction in total employment in this period (Villa, 1994, series EMP64 p.213). On the question of exports, the comparison between 1913 and 1938 masks the real trend: exports rose in volume by 12% from 1913 to 1928, as compared to a 57% fall from 1928 to 1938 (calculated from Bettelheim, 1947, pp.74-75). The War therefore reduced the industry's productive capacity and enabled its foreign competitors to gain a larger share of the world market; it was this situation that the clothing industry struggled to overcome in the 1920s, but which became

This division of unemployment is also confirmed by other studies using different measures of unemployment. Letellier *et al* (1938) found that men accounted for 77% of the *chômeurs secourus* in their sample from 1931-1935, while two-thirds of the sample used in Pouillet's (1939) study of the Parisian *chômeurs secourus* in 1937-1938 were male. The population censuses also report a similar movement of the male-female unemployment ratio, but generally find a higher female composition than in the other studies.

The composition of the unemployment stock therefore appears to be reasonably robust across the different measures of unemployment and across time. The large increase in unemployment in the early 1930s appears to have been predominantly male unemployment, while the reduction in unemployment in 1937-1938 again appears to have been largely within the male sub-group.¹⁰ However, it must be stressed that from the unemployment rate figures, there seems to be no significant difference in the severity of unemployment between the two sexes, a finding which does appear to be at odds with the international experience of the time.

2.1.2 Age

Unfortunately, as neither the *demandes d'emploi* nor the aggregate employment series are available with respect to age, the only unemployment series available to be transformed into rates is the *sans emploi* of the quinquennial population censuses. These figures are reported in Table 2.2. There is therefore only piecemeal information

forlorn once world demand began to fall in 1929.

¹⁰ Note that from Table 2.1 there was no economic recovery for the female *demandeurs d'emploi* in 1937/1938.

Table 2.2 Unemployment Rates by Age and Sex

	<u>MALE</u>				<u>FEMALE</u>			
	1921	1926	1931	1936	1921	1926	1931	1936
up to 20 years	3.17	1.20	2.67	4.51	3.83	1.32	2.67	3.98
20-29	3.44	1.58	2.98	5.98	5.90	2.20	3.90	6.15
30-39	3.90	1.89	3.25	7.43	6.69	2.22	4.03	7.01
40-49	4.36	2.30	3.75	9.05	6.41	2.26	4.22	8.56
50-59	5.21	3.00	4.81	13.02	6.19	2.40	4.42	11.03
60-69	6.64	4.07	6.40	12.97	5.79	2.67	4.45	8.41
70 years and over	6.03	4.33	6.29	10.01	4.04	2.52	3.72	5.15
All Ages	4.01	1.98	3.52	7.75	5.46	2.00	3.74	6.84

Sources: France, *Résultats statistiques du recensement de la population*, vol. 1, no.4, pp.44-55 (1921); vol.1, no.4, pp.42-47 (1926); vol.1, no.4, pp.34-39 (1931); vol.1, no.4, pp.36-41 (1936).

on how the age structure of unemployment changed as the total stock of unemployment changed.

It is immediately clear that the risk of unemployment increases with age. The lowest unemployment rates are always in the lowest age group, the second lowest rates are in the next age group and the same in the next. This age structure was not internationally universal, though. For example, Margo (1988, 1991) cites numerous surveys of unemployment in the United States, each of which suggested that it followed a U-shaped distribution with respect to age. A similar pattern was found by Eichengreen and Hatton (1988) for Australia and by Thomas (1988) for Britain. Corbett's (1991) finding of an inverted U-shaped distribution for Germany is very much an outlier.

In all countries, though, recorded youth unemployment was the least severe and the gradient in the age distribution of unemployment was smaller for women. Both of these traits are to be found in French unemployment series of Table 2.2. The only puzzle remains as to why unemployment rates increased with age and why did this

trend not continue up to the 1936 census for the over-sixties.

With regard to the first question, Beveridge (1937) argued that the answer was with unemployment duration rather than unemployment incidence. He found that the risk to the British male of becoming unemployed was the same for a man in the 35-44 years age group as it was for a man in the 60-64 age group. The main difference between them was that once unemployed, the older man found it much harder to find a new job. The question of unemployment duration is one which we shall turn to in the next section, but in the absence of annual data on the stock and flows of unemployment by age, it would seem reasonable to accredit the positive relationship between French unemployment and age to the same reasoning as above.

The answer to the second question lies in the regulations concerning the definition of the *sans emploi* as outlined in Chapter One. To recap, individuals were counted as having left the labour force if they had been unemployed for at least two years, but for persons over 60 years old, the cut-off point was one year without work. In the next section, we will show that unemployment duration was higher in 1936 than in the other census years, hence the lower cut-off point would have disproportionately reduced the number of unemployed over-sixties relative to other age groups.

Supporting evidence of this is to be found in the other studies of French unemployment during the 1930s. The Ministry of Labour survey of the *demandeurs d'emploi* in July 1936 revealed that fourteen per cent of the unemployed stock were over sixty years old; the corresponding figure was less than nine per cent of the *sans emploi* in March 1936. Letellier *et al* also report an unpublished Ministry of Labour

survey of the *chômeurs secourus* in July 1935; in this sample the over-sixties made up sixteen per cent of the unemployed stock.

The other studies also suggest that the average age of the unemployed stock may have been rising while unemployment was beginning to fall in 1937-1938: the proportion of over-fifties in the *demandes d'emploi* was 32% in July 1936; this figure rises to 45% of the Parisian *chômeurs secourus* in 1937-1938.¹¹ The two studies are not directly comparable, but the same movement was reported during earlier reductions in the stock of unemployed.

In the weekly reports on the situation of the *départemental* labour markets in the *Bulletin du Marché du Travail*, it was often reported in 1928 and 1929 that the only remaining unemployed in Saint-Etienne were old workers unable to find work outside of the Municipal works programmes. Another example is the mini-recovery of 1933. The National Labour Council reported the following shares of total *chômeurs secourus* for the over-sixties: 13.7% (July-December 1932); 17.6% (January-June 1933); 19.5% (July-December 1933); and 12.7% (January-March 1934).¹²

The severity of French unemployment therefore appears to have been uniformly and positively related to age. A lack of annual data on unemployment stocks and flows by age prevents any concrete analysis of how this distribution changed with respect to overall unemployment, but the various sample surveys of this period do suggest that any reduction in unemployment would have been concentrated on the younger section

¹¹ These figures are calculated from Ministère du Travail (1936, p.308) and Pouillet (1939, p.11) respectively.

¹² A.N. F 13562. Conseil National de la Main-d'Oeuvre, Note sur la Situation du Marché du Travail au

of the unemployed stock.

2.1.3 Industry¹³

Data on the stocks of employment and unemployment are available by industry and so calculation of unemployment rates across all the major industries and across the whole of the interwar period is possible. These unemployment rates are accordingly presented in Table 2.3. As in Table 2.1, the corresponding figures for the *sans emploi* of the quinquennial censuses are provided for comparison. It is thus possible from Table 2.3 to gain an indication of the representativeness of the *demandes d'emploi* series in each sub-period for each of the industries.

It is striking how little unemployment existed in the first sub-period. However, it must be remembered that in this period, the unemployment rates derived from the *demandeurs d'emploi* bore little resemblance to the 'true' unemployment rates of workers in the French economy. Hence greater emphasis should be put on the unemployment rates derived from the *sans emploi* where available. Nevertheless, concerning the movement of industry-specific unemployment within each the sub-periods, the *demandes d'emploi* series is still a good indicator.

There appear to be three industries who suffered the most from unemployment in the 1920s: the clothing and leather goods industries and transport and goods handling. We have already discussed in Section 2.1.1 the decline of the clothing industry and given

15 Mars 1934.

¹³ The composition of the industry groups, as well as their proportions of female and foreign workers within them, is given in the Appendix.

Table 2.3 Unemployment Rates by Industry

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Forestry, agriculture	0.01	0.01 <i>0.88</i>	0.01	0.02	0.02	0.02	0.02 <i>0.73</i>	0.03	0.03	0.02
Mining, quarrying	0.11	0.12 <i>1.10</i>	0.11	0.09	0.06	0.05	0.04 <i>0.51</i>	0.04	0.04	0.03
Foods	0.28	0.35 <i>2.96</i>	0.17	0.10	0.09	0.08	0.09 <i>1.66</i>	0.32	0.16	0.11
Chemicals	0.09	0.27 <i>0.82</i>	0.18	0.12	0.13	0.12	0.11 <i>0.23</i>	0.22	0.11	0.09
Rubber, paper	0.12	0.21 <i>5.38</i>	0.11	0.08	0.06	0.06	0.05 <i>0.85</i>	0.31	0.07	0.04
Printing	0.09	0.17 <i>4.72</i>	0.07	0.05	0.05	0.06	0.06 <i>2.15</i>	0.38	0.09	0.05
Textiles	0.03	0.14 <i>7.49</i>	0.04	0.02	0.02	0.02	0.03 <i>1.10</i>	0.24	0.02	0.02
Clothing	0.27	0.50 <i>13.22</i>	0.18	0.12	0.10	0.09	0.14 <i>3.78</i>	0.63	0.13	0.10
Leather goods	0.38	1.67 <i>12.40</i>	0.26	0.22	0.18	0.21	0.22 <i>2.39</i>	1.88	0.27	0.21
Glass, ceramics	0.11	0.24 <i>3.31</i>	0.13	0.10	0.10	0.11	0.10 <i>1.07</i>	0.18	0.06	0.07
Metallurgy, metal work	0.12	0.26 <i>5.91</i>	0.12	0.09	0.07	0.09	0.08 <i>1.91</i>	0.58	0.12	0.04
Construction	0.14	0.38 <i>6.34</i>	0.16	0.13	0.13	0.13	0.12 <i>3.11</i>	0.77	0.23	0.12
Transport, goods handling (inc. dockers)	0.42	0.81 <i>11.74</i>	0.34	0.26	0.26	0.27	0.27 <i>5.75</i>	1.57	0.40	0.20
Commerce, finance	0.35	0.43 <i>1.01</i>	0.24	0.18	0.18	0.19	0.19 <i>0.58</i>	0.40	0.24	0.18
Domestic service	0.11	0.16 <i>2.44</i>	0.13	0.13	0.15	0.17	0.16 <i>1.70</i>	0.25	0.19	0.16
TOTAL	0.14	0.26 <i>4.48</i>	0.12	0.10	0.09	0.10	0.11 <i>1.99</i>	0.43	0.14	0.09

the highly casual nature of employment for dockers and warehousemen, it is not surprising that unemployment on any particular date should be high for this group of workers. The relatively high incidence of unemployment in the leather goods industry is not so immediately explicable and so deserves some attention.

The industry does not appear to have been affected by the First World War in the same way as the clothing industry. Rather, output levels were 2% higher in 1919 than

Table 2.3 (continued)

	1930	1931	1932	1933	1934	1935	1936	1937	1938
Forestry, agriculture	0.03	0.06 1.15	0.13	0.16	0.18	0.26	0.33 2.35	0.28	0.27
Mining, quarrying	0.02	0.12 0.87	1.84	1.87	2.18	2.11	2.07 1.60	1.38	1.18
Foods	0.19	0.55 2.29	1.54	1.49	1.95	2.27	2.67 4.63	2.34	2.52
Chemicals	0.10	0.49 0.47	1.44	1.29	1.78	2.37	2.39 0.89	2.05	2.24
Rubber, paper	0.06	0.38 2.02	2.15	2.12	2.90	3.79	3.95 3.29	3.57	3.59
Printing	0.08	0.58 3.68	2.68	2.66	3.54	4.04	4.22 7.17	2.91	3.57
Textiles	0.03	0.48 2.67	3.66	3.18	3.94	6.00	5.35 5.53	4.18	4.03
Clothing	0.14	0.84 7.12	3.25	2.82	4.11	4.83	5.04 11.27	5.18	5.68
Leather goods	0.27	1.27 4.97	7.39	5.76	8.27	8.57	7.03 9.20	6.84	6.96
Glass, ceramics	0.07	0.64 1.92	2.39	2.27	3.31	3.59	3.41 5.85	2.72	3.72
Metallurgy, metal work	0.09	1.08 3.58	5.20	5.16	5.89	6.87	6.48 8.07	4.03	3.66
Construction	0.16	1.19 5.62	6.05	6.93	8.71	11.64	11.78 15.46	8.79	9.61
Transport, goods handling (inc. dockers)	0.30	2.26 10.21	7.98	8.27	10.48	12.65	13.34 18.76	11.43	12.12
Commerce, finance	0.24	0.71 1.07	2.39	2.52	3.28	3.98	4.46 2.20	3.82	4.04
Domestic service	0.17	0.33 2.69	1.01	1.12	1.57	2.13	2.60 5.20	2.66	2.37
TOTAL	0.13	0.70 3.59	2.89	2.91	3.58	4.43	4.51 7.47	3.60	3.78

Sources: *Sans Emploi: France, Résultats statistiques du recensement de la population*, vol. 1, no.4, pp.44-55 (1921); vol.1, no.4, pp.42-47 (1926); vol.1, no.4, pp.34-39 (1931); vol.1, no.4, pp.36-41 (1936); *Demandeurs d'Emploi: France, Bulletin du Marché du Travail*, 1920-1939.

in 1913, and had increased by a further 21% by 1930,¹⁴ though this was not particularly high when compared to the output growth of the newer industries such as chemicals and rubber and paper production.¹⁵

¹⁴ Villa (1993, series IP65, p.458). A similar picture also emerges for exports: the volume of leather exports rose by 21% between 1913 and 1928 (calculated from Bettelheim, 1947, pp.74-75).

¹⁵ The output levels of these industries grew by 318% and 178% respectively between 1919 and 1930

This growth was a result of increases in productivity rather than in manning levels: the Survey of Production in 1937 noted the widespread adoption of the very latest machinery throughout the industry that had taken place since the end of the hostilities,¹⁶ yet between 1919 and 1930, the industry had reduced its employment levels by 29%.¹⁷

The causes of the relatively high unemployment in the leather industry appears to have been very similar to those in the clothing industry: against a backdrop of increasing concentration in these industries in the 1920s,¹⁸ a process which resulted in a large reduction in the number of home-workers/artisans,¹⁹ a high dependency on the export market produced particularly high unemployment in 1921 when world demand contracted greatly because of the international recession.

From 1931, the level and the representativeness of the unemployment rates in Table 2.3 rises dramatically. To the three industries mentioned above, the textile, metal and construction industries appear to be particularly affected by unemployment in the 1930s.

(Villa, 1993, series IP44 and IP45, p.457).

¹⁶ J.O., Annexes, 14 Janvier 1938, pp.68-70. However, the capital formation of the shoe industry received particular attention in the report. The American firm, United Shoe Machinery, had a monopoly on the supply of machinery to the whole of the French industry (firms and artisans) with a clause in the rental lease that prohibited the use of any machinery from another supplier. This clause had been declared illegal by the governments of Britain and the US. The industry may have benefited from the quality of the machinery from this supplier, but its monopolistic powers would not have been so beneficial to the industry's profits and thus employment.

¹⁷ Villa (1994, series EMP65, p.213).

¹⁸ Despite the fact that the 1920s were indeed a period of rapid industrial concentration in these industries, this was forced upon these and other French industries by diminishing competitiveness in the world market. Bettelheim (1947, pp.50-51) shows that in 1931 the level of industrial concentration in these two industries was still significantly below that of the US, Britain, Germany and Italy.

¹⁹ The number of artisans in the leather industry fell by 42% between 1919 and 1930, though this decline was arrested in the 1930s (Villa, 1994, series EI65, p.212).

The textile industry, together with the clothing and the leather goods industries, formed what Bettelheim (1947) termed the 'traditional industries'. From the First World War these industries, he describes, suffered a decline relative to the rest of French industry. The problems of the textile industry appear to closely resemble those of the clothing industry: output levels in 1919 being significantly below those of 1913; a high dependency on the export market; and a rapid concentration of the industry throughout the 1920s.²⁰ Three factors, though, appear to have limited the level of unemployment in the textile industry relative to that of the clothing industry. Firstly, the growth of export volumes for the textile industry far exceeded that of the clothing industry between 1913 and 1928,²¹ though the collapse in textile exports thereafter was as spectacular as that for clothing. Secondly, the location of a significant section of the industry in Northern France made the return of the large number of foreign workers (mainly Belgian and Italians) to their home country relatively easy once lay-offs had begun. Finally, there was still a shortage of skilled labour in the industry even during the Depression.²²

Although the question of foreign workers and unemployment is one to which we shall return in Section 3, Letellier *et al* (1938) also identify the iron and steel industries of Eastern France as having had a large number of their unemployed foreign workers (mainly Italians) repatriated.

²⁰ The employment share of home-workers in the textile industry fell from 23% in 1919 to 11% in 1929 (Villa, 1993, series EI63 and SAL63, pp.211,217).

²¹ The relevant figures are 42% and 12% growth relative to 1913 (calculated from Bettelheim, 1947, pp.74-75). The effect of this greater export growth was a 26% increase in employment, as opposed to the 14% reduction in the clothing industry (Villa, 1993, series EMP63 and EMP64, p.213).

²² J.O., Annexes, 5 Juin 1936, pp.453-62. Conseil National Économique, *Le Chômage dans les Industries Textiles*.

The location of the metal industries also produced a problem also encountered by the textile industry. Both industries were largely centred in regions 'devastated' by the First World War and so were largely re-built with completely new technology, rather than having the existing capital stock repaired. The effect was to increase productive capacity considerably. Another consequence of the War, though, was the return of Alsace-Lorraine to French control. Its effect was to further increase the productive capacity of the cotton industry by one-quarter and to double that of the iron and steel industry.²³ In the absence of increased domestic demand, the extra production from the Alsace-Lorraine industries had to be exported.²⁴

This disequilibrium between productive capacity and demand, argue Letellier *et al* (1938), was sustained only by the temporary needs of the reconstruction of the devastated regions; by the late 1920s both industries were experiencing rising levels of stock. Thus, Marseille (1980, 1984) has argued, the French economic crisis was born from domestic overproduction, rather than international economic collapse.

The remaining industry to be particularly affected by unemployment in the 1930s, the construction industry, is an industry that normally suffers disproportionately from the contraction in demand during an economic downturn. The construction industry suffered in particular from attempts by the State to regulate expenditure in line with falling revenues and from the collapse in demand for new constructions,²⁵ partly a

²³ Letellier *et al* (1938, pp. 101), Marseille (1980, p. 676; 1984, p. 179).

²⁴ A problem that the Comité d'Études économiques et administratives relatives à l'Alsace-Lorraine, reports Marseille (1984, pp. 178-82), were well aware of in 1917.

²⁵ Bavarez (1986, p. 30) reports the number of new houses built in the Seine département to be:

1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
24,100	29,500	41,100	32,700	26,800	24,100	21,400	15,900	9,100	6,900	5,200

result of the very high real interest rates of the 1930s.

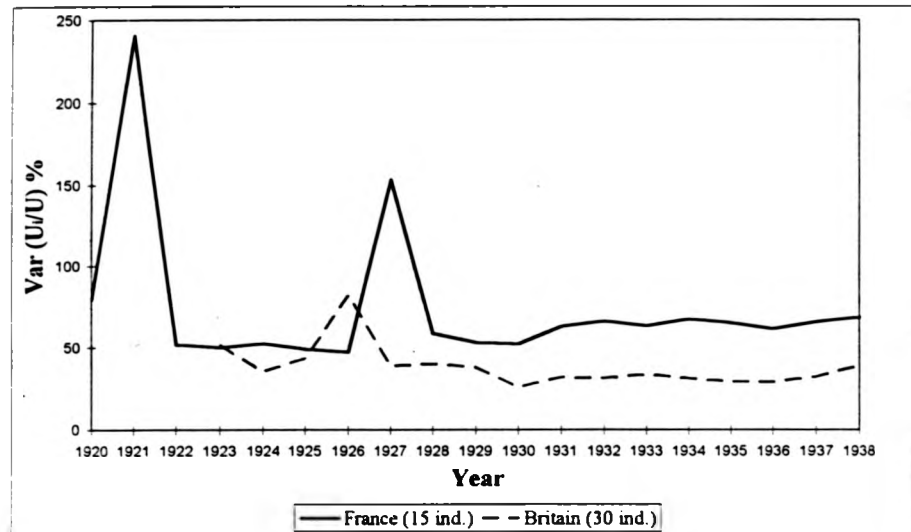
There existed, therefore, a large variation in the incidence of unemployment across the different industries and this is reflected in the variance of the industrial unemployment rates presented in Figure 2.1. It is noticeable that the dispersion of the unemployment rates is very large in 1921 and 1927, in particular. The reason for this we have already discussed - the disproportionately high unemployment rate in the leather goods industry: over six times the national aggregate in 1921 and more than four times the national aggregate in 1927, as well as the very high incidence of unemployment in the transport industries.²⁶

For international comparison, the variance of industrial unemployment rates in Britain is also presented in Figure 2.1. The unemployment rates in this series relate to thirty industries, which, with the exception of agriculture and domestic servants, comprised the industries that formed the 15 French industry groups.

The evidence from Figure 2.1 is clear: with the exception of 1926, the dispersion of unemployment rates by industry was greater in France than in Britain. It is also noticeable that, from 1928 onwards, Figure 2.1 displays a remarkable stability in the two series and thus in the differential between them. Whereas the recessions of the 1920s had been concentrated in a relatively small number of industries, with the corollary that the variance of unemployment rose significantly, the international Depression from 1929 onwards seems to have permeated through all sectors of the

²⁶ It was not possible to group these industries together to form the same groups as for the French series as the *levels* of unemployment in each industry (used for weighting purposes) were not presented at the same level of aggregation as the *rates* of unemployment in each industry. (Department of Employment.

Figure 2.1 The Dispersion of Industrial Unemployment Rates: France and Britain



Sources: France: *Bulletin du Marché du Travail*, 1920-1939; Britain: Department of Employment and Productivity (1971).

economy in both countries to produce a generalised growth in unemployment. The effect is rising unemployment, but constant industry variance of unemployment.

2.1.4 Region²⁷

The unemployment rates for each of the 12 designated regions of France are presented in Table 2.4. The annual figures are only available for the 1930s due to data limitations: the Labour Inspectors did not begin to collect data on employment until January 1931.²⁸ The only figures that relate to the 1920s are therefore those recorded

1971, Tables 163, 164, pp.312-15).

²⁷ The composition of the regions by *départements* and the region's proportion of foreign workers are given in the Appendix.

²⁸ Calculation of employment levels in 1930 is possible as firms were asked how their employment levels compared to those of 12 months earlier.

Table 2.4 Unemployment Rates by Region

	1921	1926	1930	1931	1932	1933	1934	1935	1936	1937	1938
Paris	9.22	3.63	0.33	1.89 <i>6.81</i>	7.03	7.00	7.96	9.34	10.08 <i>13.38</i>	8.46	9.57
Tours	2.46	1.19	0.06	0.46 <i>2.06</i>	1.59	1.46	2.30	2.34	2.11 <i>4.41</i>	2.03	2.12
Dijon	1.76	1.10	0.05	0.20 <i>2.16</i>	0.95	0.75	0.84	1.34	0.95 <i>3.57</i>	0.69	0.83
Nancy	2.83	2.00	0.04	0.10 <i>2.46</i>	0.85	0.96	1.40	1.89	1.53 <i>5.28</i>	0.96	1.03
Lille	5.50	2.22	0.02	0.52 <i>2.86</i>	3.87	3.82	5.70	7.39	6.81 <i>8.55</i>	5.06	4.86
Rouen	3.50	1.85	0.04	0.20 <i>2.83</i>	1.47	1.35	2.14	2.83	2.58 <i>6.23</i>	1.60	1.60
Nantes	2.21	1.05	0.07	0.13 <i>1.60</i>	0.66	1.07	1.03	1.02	0.82 <i>3.60</i>	0.58	0.70
Bordeaux	1.87	1.02	0.08	0.14 <i>1.99</i>	0.59	0.83	1.26	1.62	1.58 <i>4.47</i>	1.22	0.87
Toulouse	3.25	1.25	0.10	0.36 <i>2.31</i>	0.87	0.83	1.40	2.03	2.14 <i>5.77</i>	1.82	1.68
Marseille	4.03	1.96	0.13	0.45 <i>3.63</i>	1.92	2.19	2.40	3.50	4.29 <i>7.30</i>	4.26	3.75
Lyons	5.19	1.41	0.05	0.87 <i>3.83</i>	2.38	2.04	2.31	2.67	2.98 <i>5.53</i>	2.47	2.77
Strasbourg	2.34	1.74	0.14	0.31 <i>3.07</i>	1.37	1.55	2.11	3.39	3.25 <i>7.65</i>	1.81	1.61
TOTAL	4.48	1.99	0.13	0.70 <i>3.59</i>	2.69	2.91	3.58	4.43	4.51 <i>7.47</i>	3.60	3.78

Note: Figures in the first row for each region refer to the unemployment rate of the *demandeurs d'emploi* category of unemployed; the respective figures for the *sans emploi* are given in italics in the second row.

Sources: *Sans Emploi*: France, *Résultats statistiques du recensement de la population*, vol. 1, no. 4, pp. 116-127 (1921); vol. 1, no. 4, pp. 80-91 (1926); vol. 1, no. 4, pp. 72-83 (1931); vol. 1, no. 4, pp. 74-85 (1936); *Demandeurs d'Emploi*: France, *Bulletin du Marché du Travail*, 1920-1939.

in the population censuses.²⁹

The outstanding result from Table 2.4 is the very high incidence of recorded unemployment in the Paris region. In every year, regardless of definition of unemployment, the unemployment rate in this region was the highest of any region.

²⁹ It would be possible to interpolate the regional employment levels observed in the censuses using the national employment level, but this would abstract from some of the regional variance in the interpolated years. As unemployment was not particularly acute in the 1920s, these results are omitted.

Equally striking is the share of the total stock of unemployment in the Seine *département* alone: this averages 47% from 1920 to 1929, rising to 58% in 1930-1931, before returning to 47% from 1932 to 1938; the maximum attained is 70% of the total stock in December 1930 and January 1931.

This does, however, appear to be in part a consequence of the definition of unemployment used: the average from the four population censuses is 35% of the total stock of *sans emploi*. As discussed in Chapter One, the limitations of the *chômeurs secourus* series would suggest that the proportion of unemployed in the Seine *département* would have been higher than that estimated by the *demandes d'emploi* series above, particularly for the 1920s. Nonetheless, the distribution of recorded unemployment in France was still extremely skewed during the interwar years.

Letellier *et al* (1938) concluded that the economic crisis affected the Seine *département* before the rest of France. It would be hard to support this from Table 2.4, the average unemployment rate jumped nearly six-fold from 1930 to 1931 in the Paris region as compared to five-fold across the rest of France.³⁰ Turning to monthly data, the Seine *département*'s share of the unemployed stock rose from 58% in November 1930 to 70% in December 1930 and January 1931 and fell again thereafter. Despite the fact that the scale of unemployment in the Paris region was much higher than elsewhere, the onset of the economic crisis in the Seine *département* could only have preceded the rest of France by two months, if at all.

from Table 2.4 in order to focus attention on the 'correct' figures for the 1930s.

³⁰ If we measure the Seine *département* alone against the rest of France, the increase in unemployment in 1931 is still rather uniform: a 454% increase in the Seine *département* and a 437% increase in the

The incidence of unemployment in this region came mainly from two very different sources: on the one hand, the 'heavy' industries of construction and engineering and on the other, the luxury goods industries. The Parisian construction industries suffered as a result of the economic contraction, very much as described above, and the collapse in the housing market is well depicted by the figures in footnote 25. The region also had a very important mechanical engineering sector, of which the rise in unemployment was particularly acute for the aeronautical, boiler-making and ironworks industries. In comparison, the region's car industry fared much better: although employment had fallen by about 30% from 1930 to mid-1932, it rose steadily thereafter. In contrast, employment in the mechanical engineering sector continued to fall until early 1934, by which point employment was almost half the 1930 level.³¹

On the other hand, the luxury goods industries, which were heavily concentrated in the Parisian region, suffered greatly during the Depression as they relied to a large degree on foreign purchases. Hence, the collapse in world purchasing power and the sharp reduction in the number of tourists to Paris because of the overvalued franc³² led to particularly high unemployment in the clothing and leather goods industries.

After the Paris region came the Lille and Marseilles regions in order of unemployment incidence. As already mentioned, the textile industry in France was concentrated to a large degree in Northern France, in particular, the Lille region: yarn and cotton in the Nord *département* and tulle and lace in the Pas-de-Calais

rest of France.

³¹ Calculated from Letellier *et al* (1938, 'Seine - Graphique d', p.177).

³² Letellier *et al* (1938, p.182).

département. This industry constituted a large portion of the unemployed in the Lille region, but in terms of unemployment rates, as can be seen from Table 2.3 and the discussion thereafter, this industry did not suffer particularly high unemployment rates. The region's high unemployment rates appear to have come from the heavy unemployment in the construction industry, as elsewhere, and the mechanical engineering sector, particularly shipbuilding. A further limiting factor was the heavy concentration of mining in the region: 40% of French coal-mining production was produced in the Arras region (Pas-de-Calais); 36% of the labour force in the Pas-de-Calais *département* were miners, whose incidence of unemployment was very low.

The Marseilles region also had a significant mining population, concentrated in the Gard *département*, but the majority of the region's unemployed were to be found in the Bouches-du-Rhône *département*, where they were predominantly dockers, and after that, they had worked in the service sector. There was also widespread unemployment in the construction industry across the region, but the region was not highly industrialised and so suffered little unemployment outside of the Bouches-du-Rhône *département*.

Indeed, the question of industrialisation and unemployment is one that Salais *et al* (1986) address. From their comparison of the 1931 census with that of 1936, they find a seemingly paradoxical result: a statistically insignificant correlation between the change in the *départemental* level of unemployment and the change in the *départemental* level of employment. This, they argue, is the result of the positive correlation between unemployment and industrialisation in this period, which was in turn, a result of the limitation of unemployment to the wage-earning population

through the method of measuring unemployment.³³ This can be seen from Table 2.4: the greater the economic influence of agriculture within a region, the lower was the aggregate unemployment rate within that region.

There would appear to be a large degree of regional dispersion of the unemployment rates in Table 2.4. However, to gain a proper measure of the scale of dispersion, comparison is made with the British experience. The dispersions of regional unemployment rates in France and in Britain are presented in Figure 2.2. Despite the need for estimated regional unemployment rates for the 1920s,³⁴ the regional dispersion of French unemployment is consistently above that in Britain, whose highly regionalised nature of unemployment has long been an established and irrefutable aspect of British interwar unemployment. However, it is also noticeable that the differences between the two countries did appear to be narrowing between 1931 and 1936.

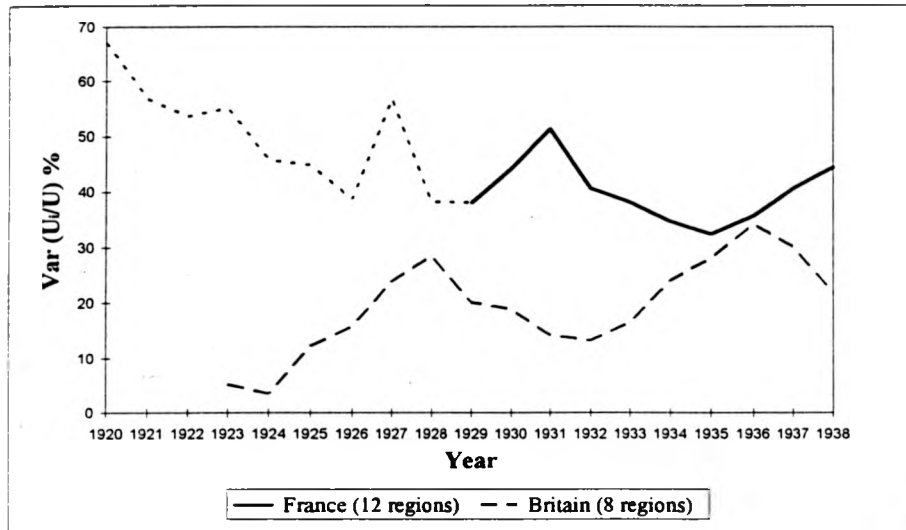
The regional dispersion of French unemployment in the interwar period is also significantly greater than it was the 1970s and 1980s: after the regional variance had been recorded at seven per cent in 1974, it fell dramatically to under four per cent for the next ten years and to under three per cent from 1985 to 1987.³⁵ By any comparison, therefore, the distribution of unemployment across the regions was rather skewed in the interwar period.

³³ See the discussion in the Introduction.

³⁴ This is done by extrapolating the regional employment levels between the census observations using the national employment level as the indicator. With the regional levels of unemployment available from the *Bulletin du Marché du Travail*, estimation of the regional unemployment rates is thus possible.

³⁵ Layard *et al* (1991, Table 6, p.294).

Figure 2.2 The Dispersion of Regional Unemployment Rates: France and Britain



Note: As the regional unemployment rates are only estimates for France in the period 1920-1929, the regional dispersion series is represented by a dotted, rather than a solid, line for these years.

Source: France: *Bulletin du Marché du Travail*, 1920-1939; Britain: calculated from Garside (1990, Table 5, p.13).

It is also noticeable that in comparing Figure 2.2 with Figure 2.1, the dispersion of unemployment rates was consistently greater across industries than it was across regions. Thus despite the fact that both regional and industrial unemployment rates were very unevenly distributed, it was the latter that was more important and this was something the policy-making bodies would have had to take into account.

2.2 The Dynamics of Unemployment

So far, we have analysed the uneven distribution of unemployment across sex, age, industries and regions, but we have occasionally sought to explain variations in the incidence of unemployment by variations in the duration of unemployment. For

example, the unemployment of young workers was much lower than that of workers over the age of sixty because, we hypothesised, the re-employment prospects for younger people were much better. Alternatively, the unemployment rates of the dockers were found to be particularly high, but given the highly casual nature of their employment, we hypothesised, the welfare costs of their unemployment were less than for construction workers, for example. These hypotheses need to be tested and assumptions about unemployment duration need to be put on a firmer footing.

The simplest method of calculating the average duration of unemployment is to first assume a steady state. That is, the inflows (S) into unemployment equal the outflows from it (H). Under these conditions, it is convenient to consider the stock of unemployment (U) as equal to the number of people entering unemployment multiplied by the expected length of their unemployment spell, the expected average completed duration (ACD, given by U/S):

$$(1) \quad U = S \cdot \frac{U}{S}$$

By invoking the steady-state assumption that $S = H$, the average duration of unemployment can be given by re-arranging):

$$(2) \quad \frac{U}{S} = \frac{1}{H/U}$$

That is, the expected average completed duration of unemployment (ACD) is equal to the inverse of the outflow rate. Alternatively, if inflow data is more reliable, (1) can

be rearranged to yield:

$$(3) \quad \frac{U}{S} = \frac{U}{N} \cdot \frac{1}{H/N}$$

Here, the expected average completed duration of unemployment is calculated as the unemployment rate (measured against the stock of employed) multiplied by the inverse of the inflow probability. In a steady state, the estimated ACDs will be equal, but if the stock of unemployment is rising the ACDs predicted from (3) will be lower than those from (2).

The French stock of unemployment in the 1930s was hardly in a steady state, but this is the most widely used estimator of completed durations and so estimates of ACDs are presented in Table 2.5 below. Note that these are calculated using the outflow rate in (2) - there is a lack of data on the number of new entrants to unemployment in France in this.³⁶ All the steady-state ACDs in Table 2.5 are computed using outflow data and this will be continued throughout the rest of this Section.

Note that a distinction is made between permanent and temporary job placements.³⁷ This is done to highlight the very large effect that small groups of casual workers who experience recurrent unemployment can have upon aggregate ACDs. As can be seen from Table 2.5, the expected average completed duration of unemployment is reduced

³⁶ Knight (1987, p.34) reports that economists prefer to use (3) because outflow data usually includes transitions to a non-labour market state, such as retirement. As the outflow data used in the chapter relates only to transitions to employment, this objection to (2) is invalid.

³⁷ A job placement is deemed temporary if it is signalled to the Placement Office that the contract of work would be of less than one week's duration. Of the 725,000 such placements in 1937, for example, dockers accounted for 82% of this total and 11% were waiters.

Table 2.5 Steady State ACDs: France, Britain and Germany

	<u>FRANCE</u>		<u>UK</u>	<u>GERMANY</u>	
	All Placings	'Permanent' Placings only	All Placings	All Placings	'Permanent' Placings only
1920	0.72	1.30			
1921	1.32	2.63			
1922	0.51	1.02			
1923	0.36	0.73			
1924	0.34	0.68		5.70	
1925	0.41	0.75		5.40	
1926	0.41	0.81	7.23	12.00	
1927	2.00	3.72	6.52	7.40	
1928	0.58	1.10	6.72	7.20	
1929	0.34	0.68	6.20	8.70	
1930	0.51	1.01	8.98	14.90	
1931	3.12	6.68	11.87	21.30	
1932	13.15	28.47	12.69	26.80	27.40
1933	13.12	28.90	11.24	22.80	25.80
1934	17.43	38.19	9.75	14.30	17.70
1935	20.55	42.56	9.42	11.30	14.70
1936	20.92	48.09	8.54	7.90	10.40
1937	16.26	40.94	7.43	5.10	7.10
1938	20.70	60.82	7.80	2.90	3.90

Note: All durations are expressed in weeks.

Sources: France: calculated from France, *Bulletin du Marché du Travail*, 1920-1939; UK: Thomas (1988, p.103); Germany: Corbett (1991, p.17).

by about one-half when the placements of this group of workers are included in the total.

It is obvious that this continual oscillation between states of employment and unemployment is not compatible with the economic notion of labour turnover. Hence, the ACDs in this Section are calculated using 'permanent' job placements only unless otherwise stated. This is a position that Thomas (1988) and Corbett (1991) aspired to, but could not attain because of data limitations.

It is apparent from Table 2.5 that, although French recorded unemployment rates were much lower than in Britain and Germany, the unemployment spells of French workers were certainly comparable to those of German workers. It is more noticeable that the unemployment spells of French workers were significantly longer than those of British workers, despite the famously high incidence of long-term unemployment in Britain.³⁸ Naturally, the rise in unemployment durations occurred later in France than elsewhere, but once the economic crisis had gripped France, the problem of elevated unemployment rates and durations remained until the Second World War.

These results are derived from steady-state assumptions that were clearly unfounded for the 1930s. However, Thomas (1988) does find support for the results of his steady-state analysis using other measures of unemployment duration not dependent on the steady-state assumption. Unfortunately, data does not exist in grouped duration form for the unemployment series in France in the interwar period and so the calculation of hazard rates is not possible.

Letellier *et al* (1941, p.135) and Bavarez (1986, p.210), on the other hand, report the average *actual* completed spells of unemployment from their sample of *chômeurs secourus*. These figures are superior to those of the *expected* average completed durations calculated earlier as they are based on actual spells of unemployment that have been completed by individuals, rather than calculations from the aggregate statistics.

In their sample of the unemployed of Paris, Lyons and Mulhouse between 1931 and

³⁸ See Garside (1990) and Crafts (1987) in particular.

1935, Letellier *et al* find that the average length of completed spells for entrants to unemployment was 135 calendar days. Bavarez's sample is restricted to Paris alone, but covers the years 1930 to 1939: his estimate was 167 calendar days. The results are very much line with each other. The concentration on Paris alone and the extension of the period to the end of the 1930s should have increased the mean duration.

But how do they relate to the steady-state ACDs calculated above? Rather than comparing them with the national aggregates in Table 2.5, steady state estimates of the mean ACD for the Seine *département* from 1930 to 1939 are calculated for comparison with the Bavarez finding, and steady-state estimates of the mean ACD for the Seine, Rhône and Haut-Rhin *départements* from 1931 to 1935 are calculated for comparison with the Letellier *et al* finding. These are found to be 369 and 315 calendar days respectively.

It may seem concerning that these ACD figures are not close to those found by Letellier *et al* and Bavarez; they are slightly more than double in magnitude. But it must be remembered that in counting actual completed unemployment spells, Letellier *et al* and Bavarez did not distinguish between exits to permanent jobs and those to temporary jobs. As noted in the discussion around Table 2.5, the economic notion of labour turnover is not consistent with temporary placements and so these were ignored in the calculation of the ACDs. It can also be noted from Table 2.5 that the ACDs based on permanent placing alone are generally double the magnitude of ACDs based on all placings, rising from 1936 onwards. The figures provided by Letellier *et al* and Bavarez based on actual completed spells are therefore entirely in line with those calculated by the expected ACD method and so give strong support to

the validity of the figures in Table 2.5.

Even if more confidence can be placed in the estimated ACDs of Table 2.5, they do not tell us how the duration of unemployment was distributed across the unemployed population. Of particular interest is the incidence of long-term unemployment; in Britain, over twenty per cent of the unemployed stock had been unemployed for more than a year during the period 1932-1938.³⁹

Unfortunately, there is only fragmentary evidence on this issue because, as mentioned earlier, the Ministry of Labour did not publish unemployment levels disaggregated by duration. Figures from the National Labour Council suggest that the incidence of long-term unemployment appears to have been similar to that of the British case: 24.7% of *chômeurs secourus* were unemployed for more than a year during the second half of 1933, while this figure rose to 25.4% in the first three months of 1934.⁴⁰

Additional evidence is provided by Bavarez's and Letellier *et al's* studies of the unemployment records. Although Bavarez reports the mean completed spell of unemployment to be 167 days, he also reports the median completed spell to be only 79 days. The distribution of Parisian unemployment spells appears to have been severely skewed. However, This heavy preponderance of short-duration unemployment is also consistent with Bavarez not distinguishing between exits to

³⁹ Crafts (1987, Table 1, p.420). The peak is reached in June 1937 at 27.5% of the unemployed stock, though changes in the method of counting the unemployed hide the fact the peak would most probably have reached in September 1936 at a rate much nearer to 30%.

⁴⁰ A.N. F¹13562. Conseil National de la Main-d'Oeuvre, *Note sur la Situation du Marché du Travail au 20 Janvier 1934* and *Note sur la Situation du Marché du Travail au 15 Mars 1934*.

permanent placements and those to merely temporary jobs. Nevertheless, it does suggest that a significant section of the unemployed experienced spells that were many times greater than the six-month mean average.

With regard to that section of the unemployed, an alternate measure is given by Letellier *et al* (1941). From their sample of *chômeurs secourus* for the period 1931-1935, they find that 16% of the unemployed stock never left this state during the whole of 1933, 21% were unemployed for the whole of 1934 and 30% for the whole of 1935.⁴¹ Given that this measures the duration of unemployment in a given year, rather than the duration of a given unemployment spell, this further adds to the evidence that long-term unemployment was at least as prevalent in France as it was in Britain.

The dynamics of unemployment in interwar France appear to have been rather less dynamic than in Britain or Germany. Unemployment durations in the 1930s were generally longer than abroad and they grew particularly long as the 'decade without recovery' wore on. The ability of 'outsiders', in Lindbeck-Snowier terms, or the non-employed, to influence the hiring decisions of employers therefore appears to have been very weak.

Even though long-term French unemployment seems to have been prevalent on a considerable scale, there still remains a need for a more disaggregated analysis to determine the factors behind these unemployment durations. That is the objective of

⁴¹ The relevant figure for 1932 is only 6%. This is because until the decree of 24 June 1932, unemployment allowances were paid up to a maximum of 180 days. One exception was the allowances paid by the charitable institutions, the bureaux de bienfaisance, which were allowed to exceed 180 days.

the rest of this Section.

2.2.1 Sex

The average expected completed durations of unemployment were estimated for both sexes and the results are presented in Table 2.6 below. Again, the figures are presented for ACDs based on the two alternative calculations: using 'total' placements and using 'permanent' placements only, the latter being the preferred measure. If the temporary outflows from unemployment are included in the calculation of the ACDs, the expected unemployment durations are found to be longer for women than they are for men. This was certainly not the case found by Thomas (1988) for Britain or by Corbett (1991) for Germany.⁴² However, once the temporary outflows have been eliminated from the calculations, the standard result of shorter female unemployment duration returns. This result also highlights the very strong male composition of the temporary outflows: nine-tenths of all temporary outflows were for dockers and waiters.

Remember that in the previous section we found that the census unemployment rates of women were higher than for men, other than in 1936. Table 2.6 mirrors this picture of near-equal incidence of unemployment in the pre-Depression era: female unemployment durations are very similar to male unemployment durations before 1931, though thereafter a sizeable differential emerges.

following the decree of 11 November 1931.

⁴² For both countries, the steady-state ACDs of women were estimated to be approximately two-thirds the length of steady-state ACDs of men. For non-steady-state ACDs, the duration of unemployment for British women was calculated to be about half that of British men (Thomas, 1988, Table 3.5, p.116; Corbett, 1991, Table 1.8, p.29).

Table 2.6 Steady State ACDs by Sex

	<u>MALE</u>		<u>FEMALE</u>	
	All Placings	'Permanent' Placings only	All Placings	'Permanent' Placings only
1920	0.62	1.25	1.10	1.41
1921	1.12	2.66	2.03	2.56
1922	0.46	1.08	0.72	0.90
1923	0.31	0.74	0.56	0.73
1924	0.29	0.66	0.54	0.71
1925	0.36	0.75	0.58	0.76
1926	0.34	0.77	0.66	0.89
1927	1.76	3.81	2.79	3.53
1928	0.51	1.12	0.81	1.05
1929	0.26	0.62	0.60	0.82
1930	0.43	0.97	0.79	1.08
1931	3.07	7.99	3.28	4.36
1932	12.52	32.68	15.56	20.35
1933	12.76	34.22	14.54	18.91
1934	17.12	45.87	18.67	23.62
1935	20.24	50.32	21.78	27.21
1936	19.67	55.81	26.57	32.86
1937	14.12	44.88	26.10	33.61
1938	17.34	67.03	38.27	49.84

Note: All durations are expressed in weeks.

Source: calculated from France, *Bulletin du Marché du Travail*, 1920-1939.

However, this is not a result shared by Letellier *et al* (1941). They found that the average actual completed spell of unemployment for the female *chômeurs secourus* in their sample was 172 days; the respective figure for men was 127 days. The problem, they argue, was one of outflow: male *chômeurs secourus* re-gained employment on average once a year during 1931-1935; female *chômeurs secourus* re-gained employment on average once every twenty months.

Given the heavy concentration of female workers in the textile and clothing industries, as well as in domestic service and commerce, Letellier *et al* compare the

unemployment durations and re-employment probabilities of the two sexes in two of these industries: textiles and commerce. In neither case was there a significant difference in the average (annual) duration of unemployment and only in the textile industry was the re-employment rate of women significantly lower than that of men.

It would appear therefore that the large unemployment durations of women found by Letellier *et al* were the result of the economic situation of the industries in which women workers were predominant, rather than the result of differential recruitment strategies of employers. This is more palatable given the results in Table 2.6: it could thus be argued that it was the heavy concentration of female-intensive industries in the Letellier *et al* sample relative to the rest of the economy that produced expected durations for women higher than those found for women in the whole of France.

In general, the unemployment experience of French women differed greatly from that of British or German women, at least relative to their male counterparts. Unemployment rates were (in relative terms) higher and durations were (in absolute terms) longer than elsewhere. This is a novel facet of French interwar unemployment.

2.2.2 Age

It is not possible to calculate ACDs by age due to a lack of unemployment flow data disaggregated by age. In fact, the only study that gives any indication of the length of completed unemployment spells is that of Letellier *et al* (1941) based on actual unemployment spells. The following discussion therefore relates to their findings only.

The positive relationship between age and the rate and the duration of unemployment in interwar Britain has been an area of much interest.⁴³ In the previous Section, we found a positive relationship between age and unemployment rates and hypothesised that the unemployment problem for older workers was one of diminished exit probabilities, the result being a high incidence of unemployment with long durations.

This hypothesis appears to have the support of the findings of the Letellier *et al* survey, which are summarised below. The figures represent the length of the average actual completed unemployment spell, in days.

<18 years	18-20	21-30	31-40	41-50	51-60	61-70	>70 years
71	107	114	125	130	146	195	216

As in Britain, unemployment duration increased uniformly with age, though the gradient of this relationship appears to be less steep than that for Britain.⁴⁴ The typical unemployment spell for 20-year-olds and under is broadly the same in France as it was in Britain, yet for the over-sixties, the French unemployment spells are only about one-third of the length of their British counterparts.

The results of Letellier *et al* also confirm the supposition made earlier that the problem of unemployment for older workers was primarily one of reduced employment probabilities. The *chômeurs secourus* aged between 20 and 60 re-gained

⁴³ See Thomas (1988) and Eichengreen (1986, 1987) in particular.

⁴⁴ The gradient can be calculated from Thomas (1988, Table 3.8, p.121). Letellier *et al* (1941, p.156-60) also find the French gradient to be relatively shallow when they compare the results of their sample to those obtained by the Belgian National Placement Office.

employment on average once every 13 months, whereas those aged over sixty regained employment once every 16 months. However, again the differences across the ages are not as great as in Britain and the period between unemployment exits is actually higher for workers of 20 years and under.

The evidence is far from complete, resting exclusively on just one study of the *chômeurs secourus* within three *départements* in the mid-1930s. One shortcoming is the lack of information on how the age distribution of unemployment durations changed over time. For example, we have already established that as the French economy recovered from the Depression, the stock of unemployed became older (see Section 2.1.2) and the duration of unemployment grew longer (see Section 2.2). By implication, therefore, unemployment durations of older workers grew longer in 1937-1938, but there is no direct evidence to test this. On the positive side, the direct evidence that does come from the Letellier *et al* study is that the distribution of unemployment durations according to age was not as strong in France as it was in Britain or in Belgium. In the absence of further evidence on the effects of age upon unemployment durations, other factors that may affect unemployment duration need to be considered.

2.2.3 Industry

Steady state ACDs for each of the fifteen industry groupings are presented in Table 2.7 below. As with the industry unemployment rate statistics reported in Table 2.3, unemployment does not appear to have affected a significant proportion of the economy during the 1920s, other than in the recessions of 1921 and 1927, and even

Table 2.7 Steady State ACDs by Industry

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Forestry, agriculture	0.32	0.22	0.11	0.20	0.16	0.16	0.23	0.32	0.29	0.20
Mining, quarrying	1.16	0.82	0.83	0.36	0.20	0.13	0.14	0.15	0.17	0.11
Foods	6.64	8.38	4.86	2.49	3.01	2.84	3.06	12.09	6.03	4.29
Chemicals	1.31	9.20	6.55	3.42	2.95	2.33	1.32	3.98	0.92	0.76
Rubber, paper	3.29	5.92	1.88	1.37	1.05	1.00	0.96	8.22	1.18	0.77
Printing	2.90	6.37	2.61	1.90	1.54	1.63	1.75	13.98	3.55	2.28
Textiles	3.59	17.34	3.08	2.47	1.59	1.75	1.84	17.07	1.49	1.11
Clothing	1.87	3.02	1.20	0.92	0.79	0.75	1.21	4.99	1.19	1.01
Leather goods	6.28	28.16	5.10	4.45	3.09	3.69	4.06	27.85	4.40	3.62
Glass, ceramics	1.83	5.39	2.32	2.10	2.49	2.58	2.11	5.80	1.35	1.78
Metallurgy, metal work	1.58	4.36	1.52	0.99	0.80	1.06	1.02	9.16	1.54	0.55
Construction	0.65	1.75	0.71	0.57	0.59	0.66	0.68	3.61	1.24	0.65
Transport, goods handling	1.05	3.21	1.12	0.61	0.56	0.59	0.60	5.02	1.04	0.49
Commerce, finance	1.99	2.88	1.45	1.08	1.03	1.11	1.09	2.94	1.48	1.05
Domestic service	0.62	0.79	0.62	0.61	0.66	0.76	0.72	1.13	0.86	0.69
TOTAL	1.30	2.63	1.02	0.73	0.68	0.75	0.81	3.72	1.10	0.68

then, only for a limited number of industries.

Workers of the leather goods industry experienced the longest unemployment durations in the first sub-period, 1920-1930. These workers also experienced the highest unemployment rates of all workers during this period and so the rapid concentration of the industry, exacerbated by the contractions in the demand for luxury goods in 1921 and 1927, yielded particularly high costs of unemployment to the workers of the French leather goods industry.

None of the other industries noted for their high incidence of unemployment in the 1920s - clothing and transport and goods handling - suffered from particularly long unemployment durations. Short durations are to be expected for transport workers and for goods handlers, but there is no a priori reasoning to suggest why workers in the

Table 2.7 (continued)

	1930	1931	1932	1933	1934	1935	1936	1937	1938
Forestry, agriculture	0.27	0.59	1.40	1.70	1.88	2.17	2.84	2.30	3.18
Mining, quarrying	0.10	1.06	23.70	22.57	34.26	26.92	20.47	14.70	22.33
Foods	7.64	26.35	83.79	67.51	68.85	76.90	94.19	137.93	186.96
Chemicals	1.54	17.27	37.62	41.28	62.37	70.07	126.96	124.79	135.38
Rubber, paper	1.28	9.59	50.70	44.70	73.74	71.00	92.69	111.54	138.39
Printing	3.10	27.62	117.59	90.38	107.98	122.77	144.17	108.79	188.82
Textiles	1.33	38.14	141.59	115.43	179.84	196.24	236.66	355.69	236.11
Clothing	1.26	7.97	29.38	22.83	37.87	37.00	47.14	55.22	75.02
Leather goods	4.89	29.58	96.00	63.63	111.95	92.66	95.11	96.54	126.58
Glass, ceramics	1.92	27.57	91.41	100.92	168.10	151.83	178.90	133.99	347.69
Metallurgy	1.25	22.10	103.21	86.28	109.38	100.54	115.28	79.62	99.92
Construction	0.90	7.66	26.81	34.95	46.40	45.29	50.89	43.96	58.96
Transport	0.83	8.31	36.34	36.70	55.52	61.92	68.69	62.65	126.93
Commerce, finance	1.46	5.23	22.32	23.06	34.18	43.32	52.85	45.78	68.32
Domestic service	0.76	1.53	5.22	6.04	9.64	12.93	16.52	17.28	21.17
TOTAL	1.01	6.68	28.47	28.90	38.19	42.56	48.09	40.94	60.82

Note: All durations are expressed in weeks.

Source: calculated from France, *Bulletin du Marché du Travail*, 1920-1939.

unemployment-prone clothing industry should experience only short spells of unemployment. The situation in the clothing industry requires closer examination.

In similar fashion to the leather goods industry, a large share of the industry's production moved from the home to the factory, but whereas in the clothing industry this had resulted in an increase in factory employment at the expense of the home-workers, it was concomitant with a reduction in both factory and artisanal employment in the leather goods industry.

The decline in employment levels in the leather goods industry yielded high and persistent unemployment, but the decline in only home-worker employment in the clothing industry meant that if these predominantly women workers did not follow the

work into the factories, they withdrew from the labour market. Their recorded unemployment spells would therefore have been short.

Other industries, on the other hand, suffered from relatively long unemployment durations in the 1921 and 1927 recessions. Of particular note is the textile industry, which was the third of Bettelheim's 'traditional' industries, whose common trait was that they suffered economic decline relative to the rest of French industry. The coupling of a relatively low incidence of unemployment with significant spells of unemployment for those textile workers affected is certainly consistent with the National Economic Council's finding of a general shortage of skilled labour in this industry (see footnote 22).

The estimated ACDs for the second sub-period, 1931-1938, serve to emphasise even more strongly than Table 2.5 did, the very long durations of unemployment in France during the Depression.⁴⁵ The estimated unemployment durations for the textile industry are in excess of two years from 1932 to the end of the decade, this was also the case for the printing and glass and ceramics industries from 1934. In 1938, in over half of the industries in Table 2.7, unemployment durations were in excess of two years.

The estimated unemployment duration in the glass and ceramics industry in this year is particularly striking at almost seven years. Indeed, unemployment durations in this industry are estimated to have been amongst the highest of all the industries in 1930s,

⁴⁵ Corbett (1991) calculates steady state occupational ACDs for Germany, though his results predict that only one occupation, mining, experienced average completed duration in excess of one year (Table 1.12, pp.36-37).

yet a look back to Table 2.3 reveals that the incidence of unemployment in the industry was certainly unspectacular.

It should be remembered that these estimated ACDs rise disproportionately to increases in the percentage of the unemployed stock suffering long-term unemployment. The dramatic rise in unemployment durations in the glass and ceramics industry may therefore be more a consequence of an increasingly skewed distribution of unemployment durations in this industry, rather than a case of all workers in this industry uniformly suffering long-term unemployment. Letellier *et al* (1938) lend some support to this view.⁴⁶

Similarly, the rapid rise in the estimated ACDs in 1938 may also be primarily a consequence of an increasing concentration of the long-term unemployables within the unemployed stock,⁴⁷ as opposed to a reduction in exit probabilities for all groups of workers. To provide comparison with these predictions of the average duration of unemployment, we turn to Letellier *et al* and Bavarez's measurements of the *actual* durations of completed unemployment spells.

Letellier *et al* report duration values from their samples of *chômeurs secourus*,⁴⁸ but there is extremely little variance in these statistics across the different industries and

⁴⁶ They report the heavy concentration of the industry's unemployment (almost fifty per cent) in the porcelain factories of the Haute-Vienne département. While unemployment flow data is unavailable at the level of industries in each département, the stock of unemployed porcelain workers varied very little from 1933 onwards. Hence, if it is assumed that this is consistent with little variation in the flows into and out of unemployment for this group of workers then they may have been suffering extreme long-term unemployment. This would be consistent with the very high estimated unemployment durations for the industry as a whole.

⁴⁷ Pouillet (1939, p.18) found that for the metal industry 31% of the *chômeurs secourus* in his sample (in 1937-1938) were 'incapable of practising a profession', the same proportion that were over the age of sixty.

they do not yield plausible results, especially when compared to those of Bavarez.⁴⁹ His duration values are averages (in weeks) over the whole of the 1930-1939 period and are reported in Table 2.8 as well as the 1930-1938 averages from Table 2.7.⁵⁰

As highlighted earlier, the ACDs have been calculated using permanent placement date, while Bavarez's actual completed unemployment spells involve transitions to both permanent and temporary placements. Thus, as shown by Table 2.5, the durations calculated from permanent placements alone should be at least twice as high as those calculated from both permanent and temporary placements for the period 1930-1939. However, the two series are not fully compatible: the ACDs refer to industries in the whole of France, whereas Bavarez's values refer to Paris alone. Given the very differing structures of industry, and therefore of unemployment, in these two areas, comparison of the two series is at best indicative rather than general.

The predicted ratio between the ACDs and Bavarez's duration values does appear to be within a sensible range for most of the industries: it is generally between one-and-a-half and five. Naturally, there are exceptions, but these can be accounted for: the very small amount of unemployed agricultural workers in Paris (0.6% of Bavarez's sample) renders the agriculture comparison meaningless; the very large concentration of unemployed domestic servants in Paris (76% of total *sans emploi* in 1936) also puts a very large bias on the ratio; and the inclusion of the retail food sector in Bavarez's

⁴⁸ Letellier *et al* (1941, Table XXXV, p. 143).

⁴⁹ The variance of the Letellier *et al* unemployment durations across industries is only 1%, whereas the variance of the Bavarez durations across industries is 9% (Bavarez, 1986, Table 2.2.4, p. 217).

⁵⁰ Where possible the industry groupings are kept the same as in Table 2.7, however there is one inconsistency: food refers to both food production and the retail food trade in Bavarez's classification, but only to food production in Table 2.7, this also means that the retail food trade is missing from the Bavarez's commerce grouping.

Table 2.8 Comparison with Bavarez's Unemployment Durations by Industry

	Agriculture	Food	Chemicals	Paper	Printing	Textiles	Clothing
Bav.	27.6	20.3	22.6	24.6	18.9	33.3	20.4
ACD	1.8	83.3	68.6	66.0	101.2	166.8	34.9

	Leather	Glass	Metal	Construction	Transport	Commerce	Domestics
Bav.	18.9	54.0	24.6	18.1	28.5	28.3	24.0
ACD	79.7	133.6	79.7	35.1	50.9	32.9	10.1

Sources: Bavarez (1986, Table 2.2.4, p.217) and Table 2.7.

commerce sector would have increased the differential to be more in line with expectations.

The estimated unemployment durations of Table 2.7 therefore appear to still hold as reasonable approximations of actual unemployment durations. The individual's choice of occupation has therefore been seen to play an important part in determining the likelihood of that individual experiencing unemployment. Nevertheless, there were other factors at play and while some of these have been discussed in this Chapter so far, there remain a few to be addressed in the remainder of this Chapter.

2.2.4 Region

The computed steady state ACDs for each of the regions of France are presented in Table 2.9. As their calculation is not dependant upon employment levels, the predicted regional unemployment durations are presented for the 1920s, which was not possible for the regional unemployment rates. They therefore give a measure of the degree of unemployment experienced in each region in the 1920s, which is useful

Table 2.9 Steady State ACDs by Region

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Paris	2.90	6.15	1.93	1.24	1.13	1.42	1.44	10.21	2.16	1.08
Tours	1.84	5.23	1.17	0.52	0.45	0.48	0.73	6.23	1.39	0.70
Dijon	0.58	0.59	0.49	0.43	0.47	0.37	0.51	0.98	0.63	0.50
Nancy	0.20	0.37	0.26	0.38	0.88	1.07	0.87	1.26	0.60	0.48
Lille	0.94	1.23	0.55	0.48	0.40	0.57	0.52	1.75	0.37	0.27
Rouen	0.63	2.25	0.81	0.46	0.55	0.62	0.60	1.35	0.57	0.38
Nantes	0.92	1.58	0.86	0.58	0.43	0.41	0.51	1.65	0.77	0.55
Bordeaux	0.62	0.94	0.68	0.62	0.54	0.49	0.59	1.27	0.67	0.58
Toulouse	0.73	1.34	0.67	0.62	0.53	0.56	0.49	0.59	0.36	0.33
Marseille	0.47	1.60	0.55	0.39	0.29	0.30	0.39	1.19	0.67	0.44
Lyons	0.62	1.92	0.66	0.52	0.56	0.51	0.59	6.09	1.09	0.41
Strasbourg	1.77	2.36	1.53	1.14	0.99	0.93	0.92	1.69	0.92	1.01
TOTAL	1.30	2.63	1.02	0.73	0.68	0.75	0.81	3.72	1.10	0.68

in the absence of a measure of the rate of unemployment in that region.

Just as Parisian unemployment rates were the highest of any region in the 1920s, so it was the same with unemployment durations. In the 1930s, the unemployment rates of the Paris region had also been the highest of all the regions, but the same cannot be said of unemployment durations this time: throughout the whole of the economic crisis, from 1932 onwards, unemployment durations were longer in the Lille region than in Paris.

It was not that unemployment durations were particularly low in Paris - they were more than twice the national average in the 1930s - but that the Parisian industries which suffered so much unemployment in the 1930s were not the industries in which long-term unemployment was rife. As can be seen from Table 2.7, the construction, metals, luxury goods (clothing and leather in particular) and service industries ranked among the industries with the lowest unemployment durations.

Table 2.9 (continued)

	1930	1931	1932	1933	1934	1935	1936	1937	1938
Paris	2.07	16.26	78.85	76.23	93.29	90.35	116.19	96.82	153.40
Tours	0.73	6.38	19.32	18.66	30.94	28.71	30.09	31.57	40.85
Dijon	0.56	2.70	14.07	9.70	10.31	15.53	10.56	8.09	11.43
Nancy	0.46	1.41	11.73	12.71	18.61	21.04	17.13	11.55	19.48
Lille	0.37	14.32	83.99	89.65	178.30	210.17	225.84	208.69	417.64
Rouen	0.44	2.29	13.92	11.92	18.03	19.53	17.49	13.44	16.17
Nantes	0.57	1.19	5.52	8.86	8.97	9.46	8.43	6.37	12.43
Bordeaux	0.55	1.13	5.15	7.28	11.37	14.35	17.62	16.03	17.60
Toulouse	0.48	1.72	4.41	3.89	7.70	9.00	10.41	8.87	11.66
Marseille	0.62	2.60	9.41	11.47	14.09	21.22	30.87	31.21	40.77
Lyons	0.69	13.75	41.08	42.99	54.11	52.71	61.69	62.86	86.29
Strasbourg	0.86	2.21	9.65	12.89	19.11	29.21	29.26	16.82	22.99
TOTAL	1.01	6.68	28.47	28.90	38.19	42.56	48.09	40.94	60.82

Note: All durations are expressed in weeks.

Source: calculated from France, *Bulletin du Marché du Travail*, 1920-1939.

The same cannot be said for the main industry of the Lille region: textiles, though as the decade wore on, unemployment in the construction and the shipbuilding industries formed a larger portion of the region's unemployment stock, whose duration had plateaued from 1934. Unfortunately, without data on the flows on unemployment in each industry per *département*, the reasons for the doubling of expected unemployment durations to eight years in 1938 remains a puzzle yet to be solved.

The Lyons region, on the other hand, experienced below average unemployment rates in the 1930s (see Table 2.4), but unemployment durations that were fifty per cent higher than the national average. Again, it is the structure of industry within the particular region that is the driving force behind this result. Alongside the prevalence of the engineering and construction industries in the Lyons region were the textile and chemical industries whose national unemployment rates had been unspectacular, but whose unemployment durations had been considerably higher than the national

average.

Other information with which to compare the figures in Table 2.9 is scarce, though an archived National Labour Council document does provide some figures on the percentage of the stock of *chômeurs secourus* that had been out of work for over 180 days:⁵¹

	Paris	Lille	Lyons	Nantes	Strasbourg	Toulouse	Marseilles
Jul-Dec '32	40.4	11.4	33.1	12.3	10.2	7.4	25.2
Jan-Jun '33	45.5	42.6	39.5	34.3	34.3	10.1	17.6
Jul-Dec '33	62.0	64.6	58.3	53.5	43.3	24.3	46.8

The respective national averages were 30.1% (July-December 1932); 39.7% (January-June 1933), and 58.0% (July-December 1933).

We can ignore the particularly low percentages for the Lille, Nantes and Strasbourg regions for the second half of 1932 as the parliamentary decree that allowed a *chômeur secouru* to receive unemployment allowances for longer than 180 days had only been issued in June 1932 (see footnote 41). The first six months were thus a transitional period in the administration and implementation of the new regulations. Thereafter the regions with the largest shares of unemployment durations of over six months are the same regions that had the highest estimated ACDs. Thus, some limited support is given to the duration statistics of Table 2.9.

⁵¹ A.N. F¹³562. Conseil National de la Main-d'Oeuvre, *Note sur la Situation du Marché du Travail au 20 Janvier 1934*. Only the regions in the Table above were reported in this document.

International comparison further highlights the uneven regional distribution of unemployment durations. As with the regional unemployment rates (see Figure 2.2), the variance of regional unemployment durations was far greater in France than it was in Britain or Germany:⁵² the upper and lower limits of the British regional ACDs were twice and less than half the national average, ratios that greatly exceeded those for the German ACDs, but which were equally inferior to those obtained from Table 2.9.

This analysis of unemployment dynamics has thrown a new light on French unemployment in the 1930s. No longer can the French unemployment of this period be dismissed as being inconsequential, particularly if one approximates the costs of unemployment using the following rule of thumb: the unemployment rate multiplied by the average expected completed duration of unemployment (ACD). Unemployment durations have been found to be particularly long in France, and in certain industries in particular. This has led to the observation that unemployment in interwar France exhibited much greater variance in its severity across industries and across region than in either Britain or Germany.

So far, we have attempted to identify the characteristics of the unemployed and of the type of unemployment they were enduring so that we can evaluate the appropriateness of various anti-unemployment measures to the target group. However, the evaluation of one policy in particular requires a greater degree of disaggregation than on offer so far: the repatriation of foreign workers. Accordingly, the next Section seeks to identify the differences between the unemployed French person and the unemployed foreigner and the types of unemployment that they suffered.

⁵² Given by Thomas (1988, Table 3.10, p. 124) and Corbett (1991, Table 1.13, p.38) respectively.

2.3 Foreign Workers: the Buffers of Unemployment?

The repatriation of unemployed foreign labour during the 1930s was one of the most (in)famous anti-unemployment measures of the interwar period.⁵³ Moreover, not only did the State attempt to reduce the unemployed stock of foreign workers, but it also strove to reduce the number of foreign workers in employment with quotas.⁵⁴ This was merely reinforcing the existing discrimination in the workplace, whereby the foreign worker was, in general, laid-off before his French counterpart.⁵⁵

In the no-mobility case, therefore, we should expect unemployment amongst the immigrant population to be higher than amongst the indigenous population. However, this differential would be reduced in the face of migration of the unemployed foreigners, be it forced repatriation or voluntary returns to the home country. In this sense, the unemployment rates of foreigners in this Section under-represent the 'true' incidence of unemployment experienced by this group of workers.

Alternatively, there may be differences in the measurement of unemployment with regard to nationality. This was the case for the *chômeurs secourus*: most, but not all, foreigners were able to register as unemployed in the same way as French workers if

⁵³ A full discussion of the measures involved and an appraisal of their effectiveness are contained in Chapter Three.

⁵⁴ Though they were rarely enacted during the first two years of their existence, the establishment of the Cabinet Committee for the Protection of National Labour in November 1934 greatly speeded up their introduction into most industries: in the two years before November 1934, 72 quotas had been introduced; in the two years thereafter, 553 were introduced (Bonnet, 1976, p.303).

⁵⁵ This policy had been advocated by the Ministry of the Interior and in the reports received from the *départemental* Prefects of Police there is ample evidence of this taking place (A.N. F¹13529-64). Letellier *et al* (1941, pp.260-68) also point to this practise in explaining their finding that in relation to their occupation before becoming unemployed, on average, job tenure and wages had been higher for unemployed foreign workers than it had been for unemployed French workers.

France had signed an unemployment relief agreement with their home country.⁵⁶ However, this measurement problem was particularly acute for the census estimates of the foreign workforce (employed and *sans emploi*). As Georges Mauco summarises

"It is generally admitted, however, that figures obtained from a census are usually lower than the actual figures, because they are based on voluntary declarations of those concerned. Moreover, distrust and negligence are more common among aliens than among nationals. In some communes the number of aliens is known to be five or six times higher than the census figure. In Marseilles, the police authorities consider that 12 to 15 per cent of the alien population were not included in the census. It may therefore safely be stated that if the 1931 census showed the number of aliens in France at 3,000,000, their actual number was much higher" (Mauco, 1936, p. 185).

The problem with the census reports of the foreign labour force was that they under-reported both the employed and the unemployed, hence it is not easy to gauge whether the unemployment rates of the *sans emploi* would be over- or under-estimates.

In theory, no foreign worker was to be employed unless he held a work permit, and also in theory, every foreign worker without a work permit was deemed as in an irregular situation and so was required to leave the country or face expulsion. The desire to avoid detection via the censuses would therefore have been strongest amongst those without a work permit, who would have had a higher probability of being in unemployment than the rest of the foreign labour force who held work permits. We can therefore reasonably assume that degree of under-reporting of the immigrant *sans emploi* would have been higher than the degree of under-reporting of the immigrants in employment. The unemployment rates of the foreign workers

⁵⁶ Mauco (1936 p.192) cites examples of such agreements between France and the emigration countries

would thereby have been under-estimated by the population censuses.⁵⁷

If the 'foreign worker' unemployment rates reported in this Section should be viewed as under-estimates of the 'true' unemployment rate experienced by this group of workers, the differentials in the incidence of unemployment between foreign and French workers that are reported in this Section should also be under-estimates.

Given that the unemployment series (*demandeurs d'emploi* and *chômeurs secourus*) reported in the *Bulletin du Marché du Travail* do not distinguish between French and foreign workers, the only available series on the relative unemployment rates of the French and foreign populations is the *sans emploi*, which was available only every five years. Compared to the previous two Sections, there is thus only limited information on the incidence of unemployment across the population sub-groups and a complete absence of information on the dynamics of unemployment.

These reservations aside, the unemployment rates of the *sans emploi* are useful in highlighting the differential experience of foreigners and nationals, particularly given the dates of the censuses: March 1921 experienced a mini-recession following the First World War; March 1926 represents the height of the 1920s boom; March 1931 experienced a very marginal-slowing down in the economy following the economic crisis in the world markets and so can reasonably represent the start of the French

of Italy, Poland, Belgium, Austria, Spain, Rumania, Yugoslavia, Switzerland, Czechoslovakia and Luxembourg.

⁵⁷ This argument holds tighter for the 1930s than it does for the 1920s. In the 1920s, the general labour shortage across industry and agriculture meant that the authorities were less vigilant in expelling foreigners in an irregular situation than they were in the 1930s when unemployment amongst nationals was rife. Hence, there was less incentive to avoid registration in the census of 1926 than there was in the census of 1936.

Depression; while March 1936 saw a marginal upturn in economic activity and so can represent the end of the Depression.⁵⁸ The four censuses were conducted, therefore, at very distinctive stages in the development of the French economy in the interwar period. In particular, the fact that the 1931 census coincided with the start of the French Depression and the 1936 census with the start of the economic recovery, is an historical accident that has proved very beneficial to students of the effects of the 1930s Depression in France.

The respective unemployment rates are reported in Table 2.10. It is immediately clear that the difference between the unemployment rates of foreigners and those of nationals depends positively upon the aggregate unemployment rate. There was no differential at the height of the 1920s boom, but there was a very large differential by the end of the 1930s Depression. This is in line with the implementation of the measures outlined earlier to reduce the number of foreigners in employment, either by the State or by private industry.

Again, it is worth re-iterating that the unemployment differential of 50% in 1936 is an underestimate of the true level: unemployed foreigners were much more likely to withdraw from the French labour market or avoid registration in the census than their French counterparts. Despite these contentions, the discrimination of foreign workers within the French labour market at times of economic slowdown is very clear.

⁵⁸ Bunle (1943, p.107) provides a note of caution, however, in comparing the census unemployment rates of the 1920s and those of the 1930s. He argues that the extreme complexity of the 1927 Naturalisation Law (see Depoid, 1942, for a full discussion) prevented the numeration of foreigners and assimilated foreigners in the censuses thereafter from being carried out with complete accuracy. He can only presume that the numerical errors would have been small and consistent across the censuses that

Table 2.10 French and Foreigner Unemployment Rates by Sex

	1921	1926	1931	1936
<u>FRENCH</u>				
Male	3.94	1.98	3.38	7.38
Female	5.44	2.00	3.68	6.77
Total	4.44	1.99	3.48	7.19
<u>FOREIGNER</u>				
Male	4.93	1.96	4.49	11.48
Female	6.02	2.02	4.76	8.06
Total	5.15	1.97	4.54	10.78

Sources: France, *Résultats statistiques du recensement de la population*, vol. 1, no.4, pp.44-55,111 (1921); vol.1, no.4, pp.42-47 (1926); vol.1, no.5, p.144 (1926); vol.1, no.4, pp.34-39 (1931); vol.1, no.5, p.104 (1931); vol.1, no.4, pp.34-39 (1936); vol.1, no.5, p.104 (1936).

The lower unemployment rate for foreigners at the height of the 1920s boom is a rather interesting result. This may merely be a result of differences in the measurement of unemployment across the two population sub-groups, or alternatively, it may be a result of the longer job tenure of foreign workers that Letellier *et al* also found.⁵⁹ This does assume that the unemployment at this time was frictional, not structural.

With the *sans emploi* unemployment series being available once every five years, there can be no estimate of movement of French and foreigner unemployment rates between these years, or of the relative durations of unemployment. Some insight is given by Letellier *et al* (1938) who found that the number of unemployed foreigners (*chômeurs secourus*) in Paris rose very much in line with the unemployed French nationals. However, the proportion of foreigners in the total stock of unemployed fell

followed.

⁵⁹ Letellier *et al* (1941, pp.260-265). A note of caution is that this result holds only for workers having passed into unemployment at some stage and thus were liable to be included in their sample. A more correct reading of their finding would be that among the unemployed foreign and French workers, the

slightly from 11.71% in 1932 to 10.15% in 1936 in their sample, which does differ from the rising differential found in Table 2.10.

On the question of unemployment durations, Letellier *et al* later found that unemployed foreigners spent ten per cent more of the year unemployed than did unemployed French nationals: 231 days of the year, compared to 209 days for French nationals.⁶⁰ Naturally, there are qualifications to this result: the sample is of Parisian *chômeurs secourus* only, for the years 1931-1935, and the larger proportion of the year unemployed may have been derived from a much larger number of shorter individual spells of unemployment for the foreign workers. However, this should not be case as Letellier *et al* also find that the average annual number of exits from unemployment was higher for French than it was for foreigners.⁶¹ Hence, there is some indication that, for Paris in the 1930s at least, unemployment durations were longer for foreign workers.

2.3.1 Sex

Table 2.10 also provides figures on the unemployment incidence of the two sexes within the foreign and French populations. The figures are very much in line with those of Table 2.1: unemployment rates were higher for women in the first three censuses, a position that was reversed with the much higher general level of

foreign workers had had longer job tenures before their spell of unemployment.

⁶⁰ Letellier *et al* (1941, p.265).

⁶¹ No aggregate figure is presented for all foreigners, but the average annual exits of 0.65 for the Poles, 0.53 for the Spanish and 0.48 for the Russians are much lower than the average 0.85 exits per year for French workers. The only exception is the Italians who average 1.05 exits per year, but these workers are concentrated in the construction industry (Letellier *et al*, 1941, p.266). Note, however, that these figures relate to males only.

unemployment in 1936. The citizenship of the individual in question does not appear to affect this relationship, which is largely determined by the contribution of each industry to the total stock of unemployment, only the size of the differential.

Of course, these relative rates of unemployment say nothing about the relative levels of unemployment for each of the sexes. In this regard, there was a significant difference between the foreign and French working populations: one-third of all French *sans emploi* were female, but less than one-fifth of foreigner *sans emploi* were female. This does reflect the male-dominated composition of the foreign labour force, but to an increasing degree, the unemployed stock of foreigners was more male-dominated. Hence, from Table 2.10, the differential between male unemployment rates in 1936 was over fifty-five per cent, but for females, it was less than twenty per cent.

In accordance with the results of Section 2.1.1, the severity of unemployment among the various population sub-groups still shows little variation, other than in 1936. Across the nationalities, female unemployment rates were marginally higher than male unemployment rates, despite the fact that the incidence of unemployment fell greatest upon the male populations.

With the generalised unemployment experienced in 1936 that eliminated any industry-dependency in the unemployment rates, this position was reversed, but more so for the foreign population than for the French: the growth in male foreigner unemployment rates from 1931 to 1936 was one-third higher than for French males, whereas the growth in the female foreigner unemployment rates was outstripped by

that for French females. To the conclusion of Section 2.1.1 that the increasing unemployment of the early 1930s was predominantly male, must be added the second observation that it was also increasingly comprised of foreign males.

2.3.2 Age

The relative distributions of unemployment with respect to age are reported in Table 2.11. As in Section 2.1.2, there is a uniformly increasing age distribution of unemployment, mostly up the age of seventy, which contrasts with the international experience at the time. The unemployment rates for foreign workers are almost universally higher than for French workers, though it is apparent that in the 1920s the difference between the two groups were particularly small for workers under the age of forty. As Mauco (1932) has pointed out, it was the prime age group of workers (20 to 40 years) who were targeted by employers to alleviate their labour shortages of the 1920s. On the other hand, the older foreign workers were generally seasonal migrants, or even daily migrants to France, *les frontaliers*, and so with no concerted effort to channel their labour into a few labour-scarce industries, they moved freely within regional labour markets, incurring (short-term) unemployment on a higher level than their newer counterparts.⁶²

With the advent of the 1930s, the relative age profiles change again. The ratio

⁶² Cross (1983, pp.127-134) gives a good description of these types of workers and of the relative decline of these more traditional forms of migration. The fact that these migrants were older than the 'new' migrants can be deduced from the following: the *départements* of Bouches-du-Rhône and Alpes-Maritimes of South-East France experienced little collective immigration in the 1920s their immigration being mainly from border migrants, however, their immigrant populations were considerably older than in the rest of France - in 1931, the proportion of immigrants over the age of 50 was 13% in the whole of France, but 19% in the Bouches-du-Rhône and 28% in the Alpes-Maritimes

Table 2.11 French and Foreigner Unemployment Rates by Age

	FRENCH				FOREIGNER			
	1921	1926	1931	1936	1921	1926	1931	1936
up to 20 years	3.39	1.25	2.61	4.21	4.61	1.21	3.54	5.78
20-29	4.30	1.76	3.15	5.94	4.65	1.76	4.00	7.24
30-39	4.71	2.00	3.30	6.87	4.72	1.86	4.43	10.99
40-49	4.84	2.29	3.74	8.36	5.35	2.26	5.16	14.03
50-59	5.39	2.82	4.57	12.03	6.96	3.31	6.66	18.40
60-69	6.28	3.63	5.71	11.34	8.88	4.68	8.29	15.69
70 years and over	5.23	3.66	5.30	8.06	9.16	5.50	8.44	13.48
All Ages	4.44	1.99	3.48	7.19	5.15	1.97	4.54	10.78

Sources: France, *Résultats statistiques du recensement de la population*, vol. 1, no.4, pp.44-55,111 (1921); vol.1, no.4, pp.34-39 (1931); vol.1, no.5, p.104 (1931); vol.1, no.4, pp.34-39 (1936); vol.1, no.5, p.104 (1936).

between the foreigner and the French unemployment rates for those under forty rises by a third in 1931 for all concerned, whereas the increase for the older workers is not so severe. The changing economic climate of the 1930s was affecting the demand for the prime-age foreigners more than most as their recruitment had been dependent upon the scarcity of labour. The figures for 1936 show a different movement again in the relative unemployment rates. There was a significant increase in 1936 in the ratio between the foreigner and the French unemployment rates for those aged thirty and above, whereas there was not for those under the age of thirty. As it was the younger, unmarried foreign worker who faced the largest threat of being laid-off,⁶³ the result can only be explained by this group (the under-thirties) being the most likely to return to their home country once unemployed. The differential age composition of immigration, as mentioned earlier, appears to hold for re-migration as well.

(*Résultats statistiques du recensement de la population*, vol. 1, no.5, pp.206-07).

⁶³ A good example is reported by the Prefect of Police for the Meurthe-et-Moselle *département*: "first of all, foreign workers are laid off, then the elderly French workers, this is done in stages and according to their family situation" (A.N. F⁷13538, report for 30 November 1931). This, of course, assumes that

This changing age composition of the unemployed foreigners can be seen from the shares of unemployment: in the first three censuses of the interwar period, two-thirds of the unemployed foreigners were under the age of forty, in 1936 this proportion falls to 57%. This movement is also evident in other studies. Letellier *et al* (1941) found that 55.0% of foreigner *chômeurs secourus* in the Paris region in 1931-1935 were under the age of forty;⁶⁴ Pouillet found that this proportion had fallen to 37.8% in 1937-38.⁶⁵

Of course, we have already noted the ageing of the unemployed stock in Section 2.1.2, particularly once unemployment began to fall in 1937-1938. The reason cited earlier was the reduced exit probabilities for older workers, now there is an additional factor in the ageing of the unemployed foreign worker: the reduced re-migration rate for older workers. As a result, the proportion of the French *sans emploi* under the age of forty had always been less than that proportion of the foreigner *sans emploi*, but in 1936 these unemployment shares were the same. This is also the result found by Pouillet. As reported above, the share of the foreigner *chômeurs secourus* aged forty and under was 37.8%; the share of the French *chômeurs secourus* in this age group was 36.0%.⁶⁶ Mauco's (1932) celebrated youthfulness of the foreign worker appears to be diminishing, at least as far the unemployed foreigners were concerned.⁶⁷

there is a positive correlation between age and marital status.

⁶⁴ The representativeness of their sample is illustrated by comparison of their results for the whole sample with those from the unpublished Ministry of Labour survey of the *chômeurs secourus* in January 1937. Letellier *et al* found 52.1% of the foreign *chômeurs secourus* in their sample to be under the age of forty in the period 1931 to 1935, whereas the Ministry of Labour found this proportion to be 51.6% (reported in Letellier *et al*, 1938, p. 135).

⁶⁵ Pouillet (1939, p. 16).

⁶⁶ Calculated from the tables on pages 11 and 16 that refer to the total unemployed stock and the foreign unemployed stock respectively.

⁶⁷ These figures and conclusions relate only to adults under the age of forty, deemed so important by Mauco. If instead we looked at the proportion of the populations over sixty years old, a different picture could be painted. The proportion of foreign *sans emploi* over the age of sixty was always lower

2.3.3 Industry

The industry unemployment rates of the French and foreigner *sans emploi* are presented in Table 2.12. The figures relate only to the last three censuses of the interwar period as the 1921 census did not provide details on the economic status of foreigners at the level of industry. Indeed, the census of this year was the only one in the interwar period not to have the results for foreigners (and assimilated French) published as a separate section.

It is clear from Table 2.12 that the higher incidence of unemployment among foreigners that we have discussed so far in this section, was not a general phenomenon, but depended greatly on the industry in which the foreigner worked. At this point, it may even be objected that Table 2.12 shows in fact a very small foreign-French unemployment rate differential; only in the transport and goods handling industry is the 1936 differential greater than the 50% average differential across all industries. So is the foreign-French unemployment rate differential only a product of over-representation of the transport and goods handling industry (34% of the foreign *sans emploi* were in this industry)? No, for two reasons. This result only holds for 1936; in the other census years the industry differentials are normally distributed around the average differential. Secondly, it must be remembered that the recorded level of foreigner unemployment is an under-estimate, and for the reasons given on pages 58-59, the degree of under-measurement would have been largest in 1936.

than that proportion for the French *sans emploi*, but this gap was rising with every census. Unemployment of older workers was thus more of a problem for the French.

Table 2.12 French and Foreigner Unemployment Rates by Industry

	FRENCH			FOREIGNER		
	1926	1931	1936	1926	1931	1936
Forestry, agriculture	0.73	1.12	2.30	0.73	1.44	2.80
Mining, quarrying	0.61	0.95	1.70	0.33	0.73	1.37
Foods	1.69	2.34	4.63	1.36	1.83	4.64
Chemicals	0.23	0.49	0.91	0.18	0.32	0.72
Rubber, paper	0.91	2.11	3.35	0.36	1.28	2.60
Printing	2.14	3.63	7.07	2.34	4.89	10.25
Textiles	1.11	2.65	5.53	0.98	2.89	5.50
Clothing	3.78	6.96	11.12	3.82	9.28	13.56
Leather goods	2.34	4.75	8.91	2.86	7.11	12.68
Glass, ceramics	1.16	2.09	5.71	0.69	1.33	6.62
Metallurgy, metal work	2.04	3.75	8.04	1.07	2.59	8.39
Construction	3.26	5.84	14.96	2.33	4.78	18.41
Transport, goods handling	5.25	8.50	16.32	18.71	44.04	60.09
Commerce, finance	0.58	1.06	2.18	0.61	1.33	2.61
Domestic service	1.71	2.66	5.14	1.55	3.02	5.97
TOTAL	1.99	3.48	7.19	1.97	4.54	10.78

Source: France, *Résultats statistiques du recensement de la population*, vol.1, no.4, pp.42-47 (1926); vol.1, no.5, pp.156-67 (1926); vol.1, no.4, pp.34-39 (1931); vol.1, no.5, pp.116-27 (1931); vol.1, no.4, pp.34-39 (1936); vol.1, no.5, pp.116-27 (1936).

In the absence of estimates on the degree of under-recording of foreign unemployment, and in particular according to industry, we shall continue with the (official) figures of Table 2.12 bearing in mind the measurement problem. It remains to explain the variation of the foreign-French unemployment rate differential across industries.

There were three industry groupings in this regard. Firstly, in the mining, chemicals and rubber and paper industries, there was a much lower recorded incidence of unemployment among foreigners than among their French counterparts. Secondly, in agriculture, commerce, domestic service and the textiles, glass and ceramics, metals and construction industries, there was no significant difference between the recorded

unemployment incidence of French and foreign workers, and where there was a higher incidence of unemployment among foreigners it was in 1936, if at all. In the final group of industries, printing, clothing, leather and transport, the risk of unemployment was far greater to the foreign workforce than to the French, and this was true throughout the interwar years.

It is noticeable, also, that these groups coincide rather well with the foreigner unemployment rates for each industry. The first grouping of the mining, chemicals and rubber and paper industries had the three lowest unemployment rates in every year. Conversely, the final grouping of the printing, clothing, leather and transport industries had, with the exception of construction in 1936, the four highest unemployment rates in every year. The foreigner unemployment rate is therefore positively correlated with the foreigner-French unemployment rate differential.

The variation in the foreigner unemployment rates across industries can be explained with reference to the immigrant share of the labour force in each industry. Full relevant statistics are given in the Appendix. The immigrant share was amongst the highest of all industries in the mining, chemicals and rubber industries, which constituted the first (low unemployment) group. Conversely, the immigrant share was amongst the lowest of all industries in the printing, clothing, leather and transport industries, which constituted the final (high unemployment) group. The incidence of unemployment for foreign workers therefore depended negatively upon their industry's dependence upon them. This may seem rather simplistic, but it does explain a great deal of the considerable variance of foreigner unemployment across industries, and as well as explaining part of the differential between French and foreigner

unemployment rates within each industry.

A second factor that may explain part of this differential is the relative skill levels of the two sets of workers. Again, it is a measure of the industry's dependency upon a particular type of worker. Unfortunately, there are no studies that directly compare the skill levels of French and foreign workers in the interwar period.⁶⁸ Industry-specific studies have been conducted and these are useful in providing piecemeal information as to whether skill levels can partly explain the variance in the foreigner-French unemployment rate differential.

The high skill level of foreign miners is consistent with the lower unemployment rate that they faced; though, this is particularly true for the Polish miners.⁶⁹ Cross (1983) confirms this: "even before the war, Polish miners had an international reputation for their skill and docility" (p.83). Another example is the construction industry. Oualid (1929) reports that 57% of the foreign workers in this industry in September 1922 were skilled workers. This could help explain the lower unemployment rates for foreigners in this industry in the 1920s when reconstruction of the devastated areas required highly productive labour.

On the other hand, the very low skill requirements for goods handlers (porters,

⁶⁸ The closest example is that of Pairault (1927). However, in the two most promising surveys in his book only the skill level of foreign workers is measured, albeit subjectively by managers, and this is graded relative to a skilled French worker of good quality'. The skill levels of French and foreign workers were not 'measured' separately.

⁶⁹ For example, contemporary studies such as those by Oualid (1929), Mauco (1932) and Wlocewski (1936) all remarked on the high regard that the coalmine-owners had for the Polish coalminers. As Oualid reports "after a period of adjustment these workers quite reach the French standard as regards output. Certain mines in the South even consider them superior [to the French], because they are more robust, methodological, and disciplined" (p.180). Georges (1924, p.396) went further and attributed the increase of productivity in the mines to the intensive utilisation of foreign personnel.

messengers, carriers, dockers, etc.), regardless of nationality, should be indicative of an industry not particularly dependent upon foreign labour, despite its sizeable contribution to this industry. Hence low skill requirements are consistent with higher foreigner unemployment rates in this industry.

The fragmentary evidence on skill levels and foreigner unemployment rates suggests that it is no more than a contributory factor, reduced in importance to a small number of industries. There remains the final factor to be considered: the willingness of French nationals to work in a particular industry.

The problem was particularly acute in mining. In the Nord and Pas-de-Calais *départements* alone, 18,000 miners left the industry in 1919 for less "repellent" occupations.⁷⁰ Furthermore, these former miners were not particularly keen to return to mining once the economic crisis of the 1930s began. In 1935, the management of the Decazeville mining industry reported that

"It is difficult to replace these [foreign] workers with Frenchmen, given the repugnance which the latter show, despite the crisis, for the difficult underground work" (Reid, 1985, p. 163).

This situation was mirrored elsewhere:

"In some branches of the chemical industry it is practically impossible to recruit Frenchmen, so arduous is the work on account of the heat, dirt, and risks due to dust and poisonous fumes, which make it necessary for the workers to wear masks and to drink large quantities of milk to counteract poisoning" (Mauco, 1936, p. 187).

In both these industries, the foreigner unemployment rate was particularly low and

consistently below that of French nationals.

This question of occupational discrimination is one which Sicsic (1994) addresses, but from a rather different angle. Instead, he makes an interesting case for the labour market experiences of foreign workers to be compared with those of French internal migrants, not all French workers *per se*. The argument reads: to determine whether industry foreigner unemployment rates were determined more by occupational discrimination than by discrimination within the workplace, it is first necessary to assess whether immigrants were working in industries in which French people were unwilling to work. Thus, he argues, the relevant population benchmark would be the French internal migrants. If the occupational distribution of French internal migrants were closer to that of foreign workers than it was to that of French non-migrants, this would confirm Prost's (1966) argument that immigration was merely 'rural exodus across borders'. In this case, the industry unemployment rates of foreigners would be more the product of discrimination within the workplace, rather than a result of doing jobs that the French were unwilling to do.

Sicsic's analysis of the 1926 census, however, shows that the occupational distributions of French migrants had a greater resemblance to those of French non-migrants than of foreign workers. Hence, the industry distribution of unemployment amongst the foreign population was principally a result of their chosen occupation, or rather, the unchosen occupations of Frenchmen.

⁷⁰ Oualid (1928, pp.1474-76). Cross (1977, p.156) reports that these miners tended to flow into relatively high-paid jobs in the reconstruction of railroads and buildings in the war zones.

To a large degree, therefore, the differences in the French and foreigner unemployment rates have been the result of the occupational distribution of unemployment, rather than its distribution by sex or age. The rule has been that the greater the industry's dependency upon foreign labour, the lower the incidence of unemployment for foreign workers in that industry. Indeed, in several industries, the French workers were more prone to unemployment than their foreign counterparts.

On the determinants of an industry's dependency upon foreign labour, the share of foreign labour within the industry workforce, the relative skill levels of foreign and French workers within the industry and the desirability of jobs within the industry to the French working population as a whole have been identified. It is supposed that the first and third factors were the most important, while skill differences can account for some of the differential in certain industries only.

Note that we have said nothing about the limiting effect of foreign worker re-migration on their unemployment rate - we stated on page 25 that this had eased unemployment in the textiles and iron and steel industries. However, it would appear that the industry location appears to have been of greater importance in determining re-migration flows, at least for the voluntary returns. We therefore now turn to the influence of region on the unemployment rates of foreign and French workers.

2.3.4 Region

The relative unemployment rates of French and foreigner *sans emploi* are presented in Table 2.13 below. As with the industry unemployment rates of Table 2.12, there is

Table 2.13 French and Foreigner Unemployment Rates by Region

	FRENCH				FOREIGNER			
	1921	1926	1931	1936	1921	1926	1931	1936
Paris	9.19	3.65	6.61	12.61	9.73	3.44	8.54	22.35
Tours	2.45	1.19	2.08	4.42	3.37	1.08	1.66	4.19
Dijon	1.77	1.11	2.16	3.53	1.60	0.88	2.11	4.06
Nancy	2.91	2.08	2.54	5.39	2.02	1.43	1.94	4.32
Lille	5.50	2.33	2.92	8.81	5.47	1.56	2.55	6.57
Rouen	3.49	1.87	2.87	6.29	3.86	1.32	2.12	4.69
Nantes	2.20	1.05	1.60	3.59	3.62	0.98	1.30	4.12
Bordeaux	1.84	1.02	1.96	4.36	3.05	1.04	2.46	6.25
Toulouse	3.32	1.28	2.31	5.68	2.41	0.99	2.31	6.44
Marseille	3.82	1.88	3.26	6.57	5.11	2.32	5.41	12.06
Lyons	5.17	1.42	3.52	5.05	5.67	1.27	6.05	9.93
Strasbourg	2.28	1.73	3.10	7.68	3.01	1.79	2.91	7.39
Total	4.44	1.99	3.48	7.19	5.15	1.97	4.54	10.78

Sources: France, *Résultats statistiques du recensement de la population*, vol. 1, no.4, pp.44-55, 132-33 (1921); vol. 1, no.4, pp.42-47 (1926); vol.1, no.5, pp.254-55 (1926); vol.1, no.4, pp.34-39 (1931); vol.1, no.5, pp.206-07 (1931); vol.1, no.4, pp.34-39 (1936); vol.1, no.5, pp.206-07.

considerable variation both in the differential between foreigner and French unemployment rates and in the level of foreigner unemployment rates themselves. There is still a very general relationship between foreigner-French unemployment differentials and the level of foreigner unemployment, particularly for the high unemployment regions, but it is not as robust as in Table 2.12. The high unemployment rate of foreigners in the regions of Paris, Marseilles and Lyons is, as expected, significantly higher than the unemployment rate of French nationals. In contrast, even though the foreigner unemployment rate in the Lille region may have been one of the highest rates for foreigners in all the regions, it was consistently below that of French workers in that particular region. Again, the under-measurement of foreign unemployment rates may be an explanatory factor.

In Section 2.1.4, we concluded that the driving force behind the incidence of

unemployment within a particular region was the composition of the industries that existed within that region. There would certainly appear to be some support for this conclusion in relation to the relative unemployment rates of foreign and French workers. The Parisian region, we have already noted, suffered particularly from unemployment in the 'heavy' industries of construction and mechanical engineering and the 'luxury goods' industries of clothing and leather. The unemployment rates of foreigners were particularly high in three of these industries (see Table 2.12) and each had a significant differential between foreigner and French unemployment rates.

The same can be observed for the Marseilles region where a large number of the unemployed were the dockers of the Bouches-du-Rhône *département*.⁷¹ At the other end of the scale, the negative foreigner-French unemployment differentials are found in regions where mining, in particular, has been the main industry. Regions that fall into this category are the Lille, Tours and Toulouse regions.

However, as we observed earlier, the correlation is far from complete and may be affected by the geographical location of the region which can play an important part in determining the re-migration flows of immigrants in the wake of rising unemployment. The four most westerly and southerly regions, Nantes, Tours, Bordeaux and Toulouse, had the four smallest percentage reductions in their foreign labour force from 1931 to 1936.⁷² The effect of the industry composition of these

⁷¹ On the question of dockers, it may be countered that the second largest concentration of dockers were found in the Seine-Inférieure *département* of the Rouen region, which experienced low foreign unemployment rates and a negative foreign-French unemployment rate differential. However, these dockers were predominantly French rather than immigrants, a situation opposite to that in the Bouches-du-Rhône *département*.

⁷² See the Appendix for a map of the regions and the share of foreigners within each region's total labour force.

regions on the foreigner-French unemployment differential would have been far greater in these regions than in those who experienced a very large outflow of foreign labour between 1931 and 1936.⁷³

The regions that experienced the six largest outflows of foreign labour were, with the exception of the Marseilles region, Northern regions: Rouen, Lille, Paris, Nancy and Strasbourg. Treating the Paris region as a special case,⁷⁴ all these regions experienced foreigner unemployment rates that were generally below those of French workers and especially so in 1936. This would seem to confirm earlier suggestions that the comparatively favourable unemployment rates in the textiles and iron and steel industries were a product of the foreign worker and geographical composition of these industries.

There therefore appears to be some interaction between the industry and region effects on the unemployment rates of French and foreign workers. Industry effects appear to be strong and only slightly modified by the locality of the industry, while on the other hand, though regional effects are still discernible, particularly for Northern France, they are modified considerably by industry effects.

In this discussion of regional effects on foreigner unemployment, very little has been said of the Marseilles region, which had a labour force of which one-sixth were

⁷³ Given that agriculture was the predominant sector in these regions, and that there was not a significant unemployment differential in agriculture, there was no exaggerated unemployment differential in these regions despite the absence of the limiting effect of re-migration foreign workers.

⁷⁴ Mauco (1936, p.192) describes how unemployed foreigners from all parts of the country, not wanting to return to their home country, had "invaded" the suburbs of the capital in search of employment. To a large degree, he reports, their attraction to the Paris region bore fruit: they were successful in finding

foreign workers. This proportion was far larger than elsewhere, but in spite of the very large differential in foreigner-French unemployment rates in this region,⁷⁵ in the ranking of regions according to the percentage reduction in the foreign labour force from 1931 to 1936, the Marseilles region ranked only fifth. The basic reason for this was the different nationality composition of the foreign labour force in the Marseilles region as compared to that in Northern France.⁷⁶ The question of nationality of the foreign worker appears to be additional influence on the re-migration rates of foreigners and thus on the foreigner-French unemployment differential. It therefore warrants attention.

2.3.5 Nationality

As we have already established that the incidence of unemployment for foreign workers was strongly affected by their occupation, the foreigner *sans emploi* are disaggregated for analysis by both nationality and industry. The results for 1931 and 1936 are presented in Table 2.14.⁷⁷

The numbers in the table are percentage shares of industry unemployment by nationality and so horizontal summation should yield a figure close to 100. As the results are given for the nine largest emigration countries only, plus the African

work in the handicrafts and commerce, but largely at rates of pay that undercut those of their French counterparts.

⁷⁵ The foreign-French unemployment rate differential reached 66% in 1931 and 84% in 1936 (see the Appendix). In fact, the Marseilles differential was the highest of any region in all four censuses during the interwar period.

⁷⁶ Most of the foreigners in the Marseilles region, or at least the major *départements* within it, were Italians (Mauco 1933, p.776). In comparison, the predominant nationalities in Northern France were the Belgians and the Poles (Cross, 1983, pp.132-34).

⁷⁷ The results for 1926 are not presented. The table would become rather cumbersome for analysis of the figures and in fact, the changes are relatively small between 1926 and 1931, compared to that of

Table 2.14 Shares of Foreigner Unemployment by Nationality and Industry

	Belgian	Czech	German	Italian	Pole	Portuguese	Russian	Spaniard	Swiss	North African
1931										
Forestry, agriculture	9.91 (10.37)	2.43 (4.13)	0.99 (0.96)	24.00 (20.44)	20.13 (30.28)	1.62 (1.52)	1.80 (0.96)	24.85 (21.97)	5.67 (4.02)	4.23 (0.26)
Mining, quarrying	2.39 (2.40)	3.14 (2.45)	6.77 (5.55)	20.73 (15.17)	42.69 (58.18)	1.73 (1.81)	0.66 (0.38)	10.16 (5.33)	0.00 (0.19)	3.22 (2.48)
Foods	11.55 (11.20)	1.65 (3.21)	2.97 (2.70)	34.82 (25.59)	9.41 (18.43)	0.66 (1.96)	1.82 (1.92)	12.21 (11.99)	8.91 (7.68)	3.30 (6.38)
Chemicals	10.81 (7.48)	0.00 (1.75)	0.90 (0.86)	29.73 (27.75)	7.21 (14.48)	3.60 (4.47)	6.31 (2.63)	12.61 (17.39)	0.90 (2.13)	9.01 (12.86)
Rubber, paper	10.76 (6.87)	1.79 (4.26)	1.35 (1.14)	25.11 (23.89)	13.00 (19.02)	0.45 (1.62)	8.07 (7.04)	9.87 (13.73)	1.79 (2.67)	7.17 (10.62)
Printing	11.45 (15.00)	1.35 (1.38)	1.68 (3.39)	21.21 (23.76)	10.44 (6.79)	0.34 (0.61)	9.09 (6.86)	10.44 (11.12)	5.39 (9.87)	3.37 (2.08)
Textiles	19.74 (24.39)	0.83 (1.15)	0.93 (2.14)	27.55 (22.82)	14.88 (17.89)	0.31 (0.64)	4.86 (2.45)	10.03 (12.12)	2.22 (2.91)	0.72 (1.90)
Clothing	7.68 (9.60)	1.60 (1.87)	1.29 (2.21)	24.51 (27.40)	16.90 (16.55)	0.17 (0.61)	8.83 (5.36)	7.82 (12.23)	2.09 (2.91)	0.76 (1.19)
Leather goods	5.28 (6.20)	1.46 (1.77)	1.06 (1.45)	21.35 (25.42)	26.22 (17.25)	0.73 (1.13)	6.49 (3.54)	7.63 (13.71)	1.54 (1.55)	1.06 (3.49)
Glass, ceramics	16.76 (9.74)	2.11 (3.17)	1.83 (1.32)	49.86 (40.90)	6.20 (15.01)	1.97 (5.50)	1.41 (1.35)	11.27 (12.62)	1.83 (1.19)	1.55 (3.32)
Metallurgy	11.59 (10.09)	2.52 (2.64)	2.64 (2.67)	27.06 (23.79)	10.74 (21.39)	0.91 (3.05)	7.44 (5.23)	8.46 (7.66)	6.15 (4.02)	4.69 (8.17)
Construction	10.03 (5.53)	0.94 (1.06)	1.40 (2.53)	55.26 (55.16)	5.04 (6.46)	3.34 (6.89)	2.55 (1.44)	10.35 (11.25)	2.76 (1.99)	1.89 (2.00)
Transport	5.09 (7.47)	1.23 (0.92)	0.85 (1.57)	23.79 (26.48)	12.90 (8.66)	3.96 (2.82)	3.93 (9.73)	15.26 (12.73)	1.49 (2.50)	20.30 (15.82)
Commerce, finance	12.12 (13.76)	0.81 (1.16)	2.42 (2.91)	17.58 (21.23)	9.49 (6.91)	1.62 (1.18)	9.09 (6.75)	7.27 (10.51)	9.90 (9.32)	4.04 (4.06)
Domestic service	9.94 (13.44)	2.85 (2.31)	3.57 (4.78)	30.43 (28.44)	18.37 (13.46)	0.89 (0.51)	4.75 (2.46)	9.99 (11.27)	6.87 (8.11)	1.23 (0.37)
TOTAL	8.44 (8.99)	1.50 (2.29)	1.53 (2.71)	32.12 (29.60)	12.62 (22.51)	2.60 (3.08)	4.30 (2.77)	12.41 (11.65)	2.93 (3.19)	9.13 (4.04)

colonies as a whole, horizontal summation will actually yield a figure that is less than 100. Nevertheless, these nationalities did make up nine-tenths of the total stock of unemployed foreign workers over the two censuses.

between 1931 and 1936. There is no great loss of information from their omission.

Table 2.14 (continued)

	Belgian	Czech	German	Italian	Pole	Portuguese	Russian	Spanish	Swiss	North African
<u>1936</u>										
Forestry, agriculture	9.45 (7.67)	3.01 (4.21)	1.07 (0.87)	22.02 (24.91)	25.58 (35.57)	0.86 (1.25)	1.75 (1.09)	27.55 (15.37)	2.50 (2.97)	1.69 (0.19)
Mining, quarrying	5.05 (2.71)	2.21 (2.17)	6.26 (5.85)	29.25 (16.67)	34.45 (57.84)	2.99 (1.94)	1.07 (0.55)	10.04 (4.93)	0.14 (0.16)	2.49 (2.34)
Foods	12.49 (11.97)	2.04 (2.58)	4.87 (2.76)	31.09 (30.00)	10.89 (16.27)	0.44 (1.21)	1.59 (2.23)	13.20 (11.15)	9.12 (7.91)	3.45 (4.93)
Chemicals	10.00 (9.40)	0.00 (1.54)	1.43 (1.12)	28.57 (29.37)	12.14 (11.88)	1.43 (3.05)	10.71 (4.31)	15.00 (14.85)	3.57 (2.67)	7.86 (12.90)
Rubber, paper	9.77 (8.39)	1.56 (2.63)	0.39 (1.23)	27.34 (28.53)	8.98 (12.01)	0.39 (1.89)	6.64 (8.95)	19.14 (14.71)	1.95 (2.76)	6.64 (9.44)
Printing	9.93 (14.41)	1.10 (1.24)	6.62 (3.73)	20.75 (24.46)	8.17 (8.10)	0.22 (0.54)	10.15 (7.53)	11.92 (11.33)	6.18 (9.32)	1.10 (1.13)
Textiles	31.03 (27.64)	1.00 (1.08)	1.14 (1.92)	21.80 (23.98)	15.85 (15.70)	0.29 (0.60)	3.62 (3.17)	6.66 (11.54)	1.81 (2.69)	1.14 (1.07)
Clothing	6.24 (7.76)	1.13 (1.41)	1.91 (2.10)	27.70 (27.58)	14.63 (19.05)	0.45 (0.52)	9.76 (5.60)	8.39 (12.18)	2.03 (2.59)	0.72 (0.88)
Leather goods	4.74 (5.55)	1.60 (1.53)	1.40 (1.90)	19.71 (26.48)	20.51 (15.71)	0.40 (0.58)	7.01 (3.95)	8.82 (12.66)	1.20 (1.53)	0.87 (2.29)
Glass, ceramics	18.34 (11.02)	1.08 (2.73)	0.90 (1.37)	54.90 (46.87)	5.50 (11.89)	2.99 (3.35)	1.31 (2.23)	8.42 (11.71)	1.55 (1.29)	0.42 (2.76)
Metallurgy	12.87 (12.19)	2.26 (1.95)	2.77 (1.99)	27.38 (28.67)	10.15 (16.15)	1.19 (2.08)	9.60 (6.55)	9.49 (7.26)	4.75 (5.05)	6.40 (8.78)
Construction	9.01 (5.95)	0.64 (0.67)	1.06 (1.63)	58.87 (59.56)	4.81 (5.02)	3.84 (4.75)	3.20 (2.04)	9.70 (10.74)	2.00 (2.06)	1.97 (3.03)
Transport	5.70 (7.31)	1.10 (1.03)	0.82 (1.40)	26.70 (26.88)	10.74 (8.46)	2.59 (2.36)	6.11 (10.07)	15.31 (13.17)	1.18 (2.09)	19.73 (16.91)
Commerce, finance	15.18 (12.48)	0.53 (1.27)	4.66 (3.01)	18.24 (24.01)	5.46 (7.93)	0.80 (1.37)	10.92 (7.59)	5.99 (9.73)	6.66 (8.41)	4.79 (3.69)
Domestic service	7.32 (10.36)	2.29 (2.36)	2.62 (3.74)	35.95 (33.93)	20.75 (19.41)	0.48 (0.57)	5.18 (2.62)	10.78 (10.85)	3.73 (5.16)	0.63 (0.32)
TOTAL	8.89 (8.97)	1.29 (2.17)	1.48 (2.31)	36.63 (31.69)	10.95 (23.10)	2.37 (2.08)	5.28 (3.33)	12.55 (10.91)	2.23 (3.12)	8.36 (3.92)

Sources: France, *Résultats statistiques du recensement de la population*, vol. 1, no. 5, pp. 116-27 (1931); vol. 1, no. 5, p. 116-27 (1936).

As these figures are industry unemployment shares, rather than rates, the relevant shares of the industry's foreign labour force are also presented in brackets below the main figure. These two figures can then be used to calculate a 'rate of discrimination' for each nationality in each industry. The rate of discrimination against the Poles in mining was therefore -27% in 1931, but for Italians it was 37%. Among the foreign

miners, therefore, Italians were far more likely to be laid-off than the Poles.

Note that this measure of discrimination quantifies the degree to which nationalities within the foreign labour force of a particular industry were more likely to be made unemployed. A negative discrimination rate does not imply that foreign workers of that nationality were less likely to be made unemployed than their French counterparts.

This measure shows that the most favoured nationalities were the Poles, the Germans and the Czechoslovaks, while those foreigners who suffered disproportionately from unemployment were the Russians and the colonial immigrants from the North Africa.

These differences need explaining. Hence, Pairault (1927) gives details of two studies of the technical value of foreign workers. The first had been carried out in 1924 on a sample of 258 metal works employing 60,000 immigrants; the second had been carried out in 1926 on a car plant in Paris employing 5,000 immigrants. In the first study, managers were asked to classify their foreign workers into three groups: good, average and unsatisfactory. In the second, they were asked to award each worker a mark out of ten, whereby a score of ten represented a "very good French worker." The results of these two surveys are summarised in Table 2.15.

The nationalities used for Table 2.14 are selected from the Pairault figures to be used in Table 2.15. Note the absence of figures for the Germans and the Swiss in either of the studies. The ranking of the nationalities was broadly the same in either study: the Belgians were considered the best workers, followed by the Italians and the Poles,

Table 2.15 Studies of the Quality of Foreign Labour, by Nationality

	1st Study						2nd Study
	Good		Average		Unsatisfactory		Score
	skilled	unskilled	skilled	unskilled	skilled	unskilled	(out of ten)
Belgian	85	85	15	15	0	0	9.0
Czechoslovak	40	50	60	50	0	0	6.7
Italian	65	75	30	20	5	5	7.3
Polish	70	65	30	30	0	5	6.4
Portuguese	50	60	50	35	0	5	6.5
Russian	50	50	50	50	0	0	6.6
Spanish	50	65	50	30	0	5	6.5
North African	15	30	85	45	0	25	2.9

Source: Pairault (1927, pp.186-87).

then the Czechoslovaks, Portuguese, Russians and Spanish. The North Africans were considered very poor quality workers in both surveys.⁷⁸

This ranking does not seem to fit too well with Table 2.14, even for the metals industry alone. The Poles and the Portuguese should have been the most valued workers, whereas the Russians should have been the least valued. The most surprising result from comparison of the two tables is that despite the very high discrimination against North Africans in agriculture and domestic service, their share of unemployment in the metals industry was much lower than their share of the labour force. This is not consistent with them being such poor workers.

One mitigating factor may be the re-migration of the unemployed foreigners. Indeed,

⁷⁸ It must be added that only 15% of the North Africans were skilled workers; this compares to 66% of the Belgians (Pairault, 1927, p.170). Similarly, Fridenson (1972) reports that the North Africans employed by Renault were generally unqualified labourers and of the Parisian *chômeurs secourus* in Pouillet (1939), 79% were unqualified labourers compared to 18% in the sample as a whole. On the question of their physical aptitude, Gomar (1931, p.39) found that Algerians frequently failed the medical examinations for military conscription because their physical size and strength was often below European standards.

the remigration rates of Algerians were particularly high,⁷⁹ hence, the 'discrimination rate' would have under-recorded the true risk of unemployment for Algerian metal workers.⁸⁰

Another study of the economic value of immigrants was undertaken by Mauco (1932). He comes to the conclusion that the two most important determinants of an immigrant's economic value were the degree of similarity of society in his home country to that in France and his ethnic parentage: Germanic, Latin, Slav or non-European.⁸¹ From this classification, the Swiss, Belgians and the Northern Italians would have made excellent workers; the societies of the Spanish, Portuguese and Southern Italians had different values and ideas and workers from these countries would have been of a lower rank; while the North Africans would have been bottom of the list.⁸² This ranking is more in line with predicted by Table 2.14.

Other studies have focused on one particular nationality. Thus, they have concluded, the Italians were the most valued skilled workers in the construction industry, as woodcutters or masons in particular,⁸³ and they made particularly good unskilled

⁷⁹ This was identified at the time by Huber (1931, p.793). However, see Carlier (1985, pp.165-66 in particular) for corrections to the official migration flow and population census statistics and an extension of the data to the whole of the interwar period.

⁸⁰ Huber (1931) also draws attention to the very high sensitivity of Algerian migration flows to changes in labour market opportunities

⁸¹ Mauco (1932, p.268). This is very similar to the conclusions already reached by William Oualid. He makes the observation that "the general technical value of workers in foreign countries depends on the degree of similarity of civilisation and economic experience" (Oualid, 1929, pp.181-82).

⁸² Oualid's (1929) classification is identical for the nationalities covered by Mauco, however he adds the Czechoslovaks to the first, most-desired, group of workers, and the Russians and the Poles to the second group.

⁸³ See Oualid (1929, p.183) and Commissariato Generale dell'Emigrazione (1926, p.70). Letellier *et al* (1938, p.296) give the example of one year (not given) when the Italian government placed stringent controls on emigration. The result was that a great number of trees in the Savoie and Haute-Savoie départements were not cut down as it had proved impossible to find the French workers able to do the job.

workers in the chemicals industry.⁸⁴ The primacy of the Polish miners has already been noted, but the Poles farm-workers were in equal demand, being noted for their docility and capacity for heavy work, while generally accepting very low wages.⁸⁵ The growing demand for Polish agricultural workers came largely at the expense of the Belgians, who concentrated more on seasonal farm work. The Spaniards also formed an invaluable source of seasonal labour in the agricultural and wine-growing regions of south-west France, whereas the qualified industrial Spanish worker was employed in the construction or the brick-making industry, largely at the expense of French workers.⁸⁶

Therefore, both profession and nationality are important determinants of the unemployment incidence of foreigners. Attempts to separate these effects are made by Letellier *et al* (1941), who find that even when allowance has been made for the age and the profession of the *chômeur secouru*, there remains a large variation in the proportion of the year spent unemployed according to nationality. Relative to French *chômeurs secourus* of the same age and profession, the annual incidence of unemployment was 8% higher for Italians, 12% higher for North Africans and 24% higher for Russians.⁸⁷

⁸⁴ The arduous nature of work in the chemicals industry has been described earlier. Oualid (1929, p.183) describes the personal qualities of the Italians - sober, robust, and disciplined - that were ideal for this type of work. Indeed, Armenjon and de Fonclare (1929, p.285) highlight the dependency of the industry upon the Italian labourers from Piedmont - other immigrants had been found to be no substitute.

⁸⁵ Cross (1983, pp.78-80). If anything, he notes, the French were particularly impressed with the female farm workers, whom they considered to be "more docile, stronger and more energetic" than their French counterparts (p.78).

⁸⁶ Mauco (1932, p.256). Much of this work was seasonal with the Spaniards returning home in the winter months and therefore followed the traditional migration patterns of border migration. The Spaniards were noteworthy, though, in that they were the only neighbour nationality to have increased their share of the total workforce from 1911 to 1931 (Cross, 1983, Table 11, p.128).

⁸⁷ In addition, the annual incidence of unemployment was 21% higher for Spaniards and 22% higher for Poles. However, given the predominant distribution of these foreigners in the agriculture and mining industries, of which there were neither in the Paris region, these results cannot be given any

The heterogeneity of the foreign labour force across nationalities and across industries is confirmed. Not only does a foreigner's choice of occupation affect the probability that he will face unemployment, but his personal and social background (a result of his nationality) also affects his suitability to the French employer. These factors are important in explaining Table 2.14 and Table 2.15. It is also worth remembering that regardless of the heterogeneity of the foreign labour force, the incidence of unemployment was far higher for foreign workers than for French workers.

2.4 Conclusions

Many authors have noted the surprisingly low unemployment rates for France during the Depression of the 1930s,⁸⁸ and this is confirmed by the figures presented in Table 1.1. However, aggregate unemployment statistics can be misleading. For example, they reveal nothing about the bifurcated nature of the labour market in Britain and Germany,⁸⁹ and so they can say nothing about the structure of unemployment in France either.

This Chapter has shown that while the aggregate level of unemployment may have been unspectacular, the structure of unemployment in interwar France was much more noteworthy. The 'insider-outsider' mechanism that seems to have been so powerful in interwar France will be important in determining the empirical model of the labour market in Chapter Four.

generalised interpretation.

⁸⁸ See Bavarez (1991), Salais (1988) and Sauvy (1965, 1967) in particular.

Yet there was also considerable variation in the both the incidence and duration of unemployment amongst the various sub-groups of the population and the economy. The nature of interwar French unemployment is therefore indicative of a bifurcated labour market - high exit probabilities and short spells of unemployment for one set of workers, low exit probabilities and long-term unemployment for another. If measures that were designed to combat unemployment were to be successful, the characteristics and the determinants of the second group needed to be first identified and second, those measures needed to be targeted at that particular group of unemployed workers. In addition, those measures needed to avoid adversely affecting the first group of workers or those workers previously unaffected by unemployment at all. These two stages are the subject matter of this and the next Chapter respectively.

This Chapter has shown that the typical worker's risk of unemployment was affected by five different personal characteristics: sex, age, occupation, place of residence, and nationality. The typical worker was just as likely to experience unemployment if he/she was young or old, male or female, but much more likely to face unemployment if not of French nationality, particularly non-European. The place of residence and occupation were particularly important factors: he/she was much less likely to experience unemployment if living in Western France, rather than in Eastern France, and much more likely to become unemployed if he/she was a construction worker, rather than a miner.

The same factors affected the typical unemployed worker's length of spell of unemployment: he/she would remain unemployed for longer if male or old or not of

⁴⁹ See Thomas (1988) and Corbett (1991) respectively.

French nationality. With respect to place of residence and occupation, he/she would experience short spells of unemployment if living in Western France, rather than Eastern France, and long spells of unemployment if he/she was a textile worker, rather than a domestic servant.

There may have been interactions between these characteristics and there is reason to believe that industry and nationality may have been the dominant factors, but the majority of the unemployment stock was still drawn from a specific section of the labour force. In similar fashion, the incidence of long-term unemployment was generally confined to a specific, though larger, section of the unemployed stock.

The importance of these characteristics in determining the incidence and duration of unemployment was not unique to France: in virtually all of the countries studied in Eichengreen and Hatton's volume *Interwar Unemployment in International Perspective*, these characteristics were found to be important determinants of unemployment incidence. But as Figure 2.1 and Figure 2.2 have illustrated, the unemployed in France were differentiated to a far greater degree by their occupation and place of residence than in Britain, a country noted for its highly differentiated unemployment in the 1930s. There is also the additional and important differential of nationality.

While the total number of the unemployed in France may have been lower than elsewhere, the incidence of unemployment for particular sections of the French labour force was as severe as elsewhere, and the duration of unemployment for large sections of the labour force was even more severe than elsewhere. Unemployment was

therefore more of a problem in interwar France than suggested by the aggregate unemployment rate. The scope for active labour market programmes is clear, especially given some of the specificities of the unemployed. Having identified the unemployed, it is now time to see if public policy actually helped them.

2.5 Appendix: Regional and Industry Classifications

The classification of the industry groups used in Chapter Two is detailed in Table 2.16 below and comparison is made with the classifications that used by Villa (1993, 1994). In the two columns under the heading 'Villa classification', his industry group code is given in the first and the title of that industry group is given in the second. If the industry group used in this Chapter forms only part of the relevant industry group used by Villa, the industry code is given in brackets.

Hence, for example, the industry group 'Agriculture' used in this Chapter is the same as the industry group 'Agriculture, Forestry and Fishing' used by Villa. On the other hand, the industry group 'Mining' used in this Chapter forms only part of Villa's industry group 'Intermediate Industries'; it is industry code 41 within that group.

Where the industry group used in this Chapter comprises more than one industry group in Villa (1993, 1994), the relevant industries/industry groups are indicated. Hence, the industry group 'Construction' used in this Chapter is the same as Villa's 'Construction' group, plus the wood industry (industry code 61); also the industry group 'Commerce' is the same as that used by Villa, plus the 'Financial Institutions' industry group.

The percentage shares of females and foreigners within each industry's labour force are also given. These are averages over the four census figures for female shares, and over the three available census figures for foreigner shares.

Table 2.16 Industry Classification: Chapter Two and Villa; Female and Foreigner Shares of Industry Labour Force

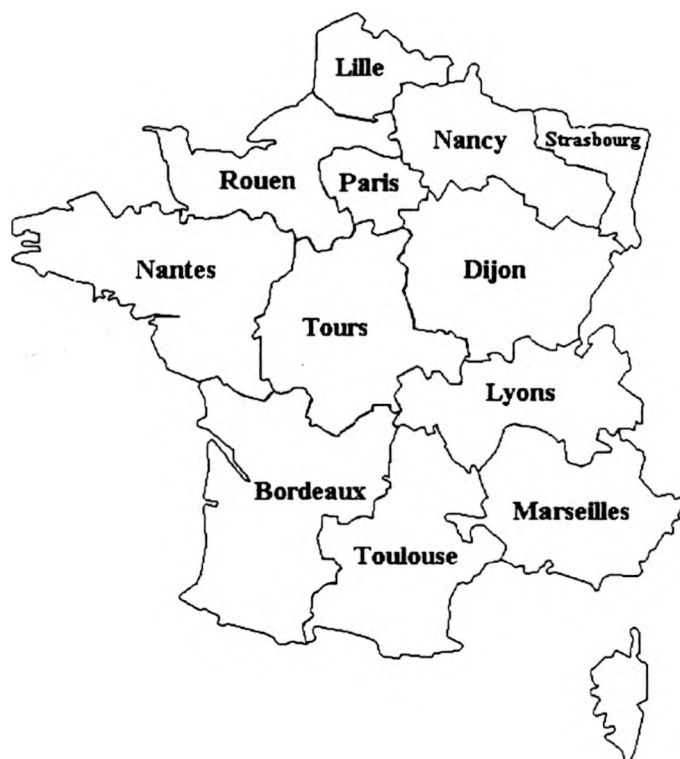
Industry	Villa Classification		Female	Foreign
Agriculture	U01	Agriculture, Forestry and Fishing	28.31%	6.86%
Mining	U04	Intermediate Industries (41)	2.36%	34.43%
Foods	U02	Food, Beverages and Tobacco Industries	24.95%	8.02%
Chemicals	U04	Intermediate Industries (44)	21.48%	13.68%
Rubber	U04	Intermediate Industries (43, 45)	41.67%	9.58%
Printing	U06	Consumption Industries (62)	29.65%	4.28%
Textiles	U06	Consumption Industries (63)	58.38%	7.33%
Clothing	U06	Consumption Industries (64)	81.29%	6.42%
Leather	U06	Consumption Industries (65)	36.22%	8.82%
Glass	U04	Intermediate Industries (46)	16.52%	18.64%
Metal Work	U04	Intermediate Industries (42)	11.08%	12.14%
Construction	U06 U07	Consumption Industries (61); Construction	5.00%	17.08%
Transport	U09	Goods Handling, Transport, Telecommunications (81)	8.99%	4.69%
Commerce	U08 F	Wholesale and Retail Trade, Restaurants, Hotels; Financial Institutions	36.52%	4.75%
Domestics	M	Domestic Services	88.28%	7.72%

Sources: Classifications: Villa (1993, 1994); Female Shares: France, *Résultats statistiques du recensement de la population*, vol. 1, no. 4, pp. 44-55 (1921); vol. 1, no. 4, pp. 42-47 (1926); vol. 1, no. 4, pp. 34-39 (1931); vol. 1, no. 4, pp. 34-39 (1936); Foreigner Shares: France, *Résultats statistiques du recensement de la population*, vol. 1, no. 4, pp. 42-47 (1926); vol. 1, no. 5, pp. 156-67 (1926); vol. 1, no. 4, pp. 34-39 (1931); vol. 1, no. 5, pp. 146-27 (1931); vol. 1, no. 4, pp. 34-39 (1936); vol. 1, no. 5, pp. 116-27 (1936).

Regarding regional classifications, this information is presented in two separate ways.

Firstly, a map of France is presented in Figure 2.3, split into the twelve regions used for analysis in this Chapter. The data requirements for the regional employment series determine that these regions are those of the twelve *Inspecteur du Travail* divisions.

Figure 2.3 Map of France, by *Inspecteurs du Travail* Regions



Secondly, Table 2.17 lists the *départements* contained in each of the regions and the share of the regional labour force made up by foreigners. As with the industry shares, these figures are averages over the three censuses of 1926, 1931 and 1936.

Table 2.17 Composition of Regions by Département; Foreigner Shares of Regional Labour Force

Region	Département	Foreign
Paris	Seine, Seine-et-Marne, Seine-et-Oise	8.32%
Tours	Allier, Cher, Creuse, Indre, Indre-et-Loire, Loir-et-Cher, Loiret, Vienne, Haute-Vienne	2.79%
Dijon	Aube, Belfort, Côte-d'Or, Doubs, Jura, Haute-Marne, Nièvre, Haute-Saône, Saône-et-Loire, Yonne	6.85%
Nancy	Aisne, Ardennes, Marne, Meurthe-et-Moselle, Meuse, Vosges	11.38%
Lille	Nord, Pas-de-Calais, Somme	12.62%
Rouen	Calvados, Eure, Eure-et-Loir, Manche, Oise, Orne, Seine-Inférieure	4.20%
Nantes	Côtes-du-Nord, Finistère, Ille-et-Vilaine, Loire-Inférieure, Maine-et-Loire, Mayenne, Morbihan, Sarthe, Deux-Sèvres, Vendée	0.89%
Bordeaux	Charente, Charente-Inférieure, Corrèze, Dordogne, Gers, Gironde, Landes, Lot, Lot-et-Garonne, Basses-Pyrénées, Hautes-Pyrénées	4.95%
Toulouse	Ariège, Aude, Aveyron, Cantal, Haute-Garonne, Hérault, Lozère, Pyrénées-Orientales, Tarn, Tarn-et-Garonne	10.93%
Marseille	Basses-Alpes, Hautes-Alpes, Alpes-Maritimes, Ardèche, Bouches-du-Rhône, Corse, Drôme, Gard, Var, Vaucluse	16.33%
Lyons	Ain, Isère, Loire, Haute-Loire, Puy-de-Dôme, Rhône, Savoie, Haute-Savoie	9.18%
Strasbourg	Moselle, Bas-Rhin, Haut-Rhin	11.41%

Sources: France, *Résultats statistiques du recensement de la population*, vol.1, no.4, pp.44-55, 132-33 (1921); vol.1, no.4, pp.42-47 (1926); vol.1, no.5, pp.254-55 (1926); vol.1, no.4, pp.34-39 (1931); vol.1, no.5, pp.206-07 (1931); vol.1, no.4, pp.34-39 (1936); vol.1, no.5, pp.206-07.

POLICY RESPONSES TO THE UNEMPLOYMENT CRISIS

Why was unemployment so low in France in the 1930s? The depletion of the French labour force by war losses, compounded by the long-term decline in the birth rate, had resulted in labour shortages in the 1920s that were alleviated only by a massive influx of foreign labour.¹ But as Galenson and Zellner (1957) state, France provided an exception to their finding that "relatively low unemployment during the 1920s tended to be followed by relatively high unemployment during the following decade" (p 466).

While many have argued that the low level of unemployment during the 1930s was a result of statistical mismeasurement,² others have stressed the structure of the interwar labour market as a barrier to the conceptualisation, and thus measurement, of unemployment.³ These are important points to remember when comparing French unemployment rates with those of other countries, but the fact that unemployment was higher elsewhere did nothing to alleviate the political pressures for policy action within France itself.⁴ The number of *sans emploi* was 85% higher in 1931 than in

¹ Sicsic (1994, p.125) estimates that the immigrant contribution to the increase in the labour force from 1911 to 1926 was 99.8%. "In other words, without the immigrants, the labour force would have remained constant after 1911, even though Alsace and Lorraine were added to the French totals" (p.124).

² See Sauvy (1967), Marpsat (1982) and Villa (1993) in particular, and Fuss (1927) and Letellier *et al* (1938) for a contemporary recognition of this problem.

³ See in particular Salais (1985, 1988) and Salais *et al* (1986).

⁴ The French governments were well aware of the statistical defects of the official unemployment series, even at the start of the economic crisis: in February 1931, the Labour Minister, Adolphe Landry, suggested, in response to a question from Léon Blum, that the real level of unemployment could be obtained by tripling the figure given by the *chômeurs secourus* series (J.O. Ch., 12 February 1931, pp 620-21).

1926 and a further 81% higher in 1936 than in 1931.⁵ Thus, despite the very low absolute level of unemployment in France, it was a burning issue politically as it showed few signs of abating throughout the whole of the 1930s.

The level of unemployment may have been low, but given that Communist activity was relatively high in France at the time, the Ministry of the Interior was particularly concerned about the public order consequences of the rising unemployment. It therefore organised bi-monthly labour market surveys "to determine the number of workers without work, considered as particularly accessible to revolutionary propaganda".⁶

The concerns were warranted. Attempts were being made to organise the unemployed around the *Comités des Chômeurs*, a rather transparent front for the Communist Party, but the revolutionaries had only limited success outside of the capital. In the Paris region, however, Communist political influence was much stronger - they controlled the municipal councils of St. Denis, Bobigny and Villejuif - and the *Comités des Chômeurs* were much more active.⁷ As Jackson (1985, p.45) notes, by the end of 1931 they had been frequented by some 12,000 unemployed, one-sixth of the total number of unemployed. Though the unemployed did not join the ranks of the Communist

⁵ With regard to the *demandes d'emploi* series, the number of unemployed in 1932 was 22 times higher in 1932 than in 1930 and 34 times higher in 1936 than in 1930. In Chapter One, however, we have suggested that there may be considerable measurement error with this series, especially in comparing the 1930 level when unemployment was rare with the level in later years when unemployment was widespread.

⁶ A.N. F¹³ 13529, Ministry of the Interior note, *Enquêtes Concernant le Chômage*, 19 February 1931. These surveys were in the form of completed questionnaires, outlined in the Ministry circular of 7 February 1931, and are still maintained at the French National Archives (classmark F¹³ 13529-13565, copies were also sent to Ministry of Labour of which some still remain, classmark F² 668-675) for the years up to 1937.

⁷ See Brunet (1980), in particular, for an account of the activities of the Communists in the capital in this period.

Party in droves - membership reached a historic low in 1933 - the Ministry of the Interior was very keen to limit the sphere of influence of the Communists by the promotion of active measures to combat unemployment.

The first stage, though, was the monitoring of the state of the labour market through the bi-monthly surveys. These were carried out by the *départemental* Prefects,⁸ and had four stated objectives:⁹

- i) To directly measure the number of workers in full or partial unemployment in all branches of the economy;
- ii) To determine the number of foreigners still in employment in France;
- iii) To identify the methods used to limit unemployment, despite the slowing-down of economic activity;
- iv) To predict the labour market situation for the following fortnight in light of the above points.

Despite the problems associated with any sample survey,¹⁰ these reports provide a rich source of information on the local labour markets in France in the 1930s. Together with the information provided by the Prefects and contained in the final

⁸ The following extract from Coveney and Kempa (1978) summarises the responsibilities of these Prefects and their appropriateness for the task of collecting the information required:

"In every *département* in France there is a *préfet de département* who is the sole representative of the ministries. He is the only person to whom powers of decision may be delegated, although he may in turn delegate some of his authority to his *chefs de service*. The *préfet* is not elected but appointed to his post by the President and the *Conseil des Ministres*. He is responsible for the execution of legislation within the *département*, and for the provision of information to the government" (p.17).

⁹ A.N. F⁷ 13529, Ministry of the Interior note, *Enquêtes Concernant le Chômage*, 19 February 1931.

¹⁰ The main problems were lack of consistency in reporting standards and a less than perfect reply rate. Some Prefects presented figures on the number of unemployed affected by the public measures, such as those for the Hérault and Lot-et-Garonne *départements*, while others gave the same response month after the month, such as the Prefects of the Loire and Belfort *départements* (see also Bonnet, 1976, pp.260-61). On the other hand, some Prefects hardly sent in their reports - they were predominantly from agricultural regions with little or no unemployment. This deficiency, though, is most serious with the failure of the Prefect for the Seine *département* to reply with the information requested by the Ministry of the Interior. There is therefore very little information on the measures used to combat unemployment in the Paris region, which is a particularly important omission given the heavy

section of the *Bulletin du Marché du Travail*, there is ample evidence of the effectiveness of public policy, even if it is only at the level of the *département*, aggregation being difficult for the reasons discussed in footnote 10.

The first results from the Prefects' reports showed that:¹¹

- i) The first casualties of the economic slowdown had been the foreign workers and that almost all of those that had been made unemployed had been removed from French territory;
- ii) In many regions, important communal and *départemental* works were absorbing, or were on the point of absorbing, a non-negligible proportion of those without work.

The first finding was consistent with government action on the issue. The Labour Minister, Adolphe Landry, announced to the Chamber of Deputies that the strictest possible enforcement of the 1926 Law for the Protection of National Labour, completed by article 9 of the decree of 10 July 1929 on the question of identity cards, was producing favourable results.¹² However, the government had not initiated the relief works. Despite the various forms of expenditure programmes proposed by Tardieu in 1929-1930, only the first article of the final bill had been voted by the time the government had fallen in December 1930.¹³ Instead, the relief works were a traditional means of temporary employment for unemployed workers in the localities, a necessary means of subsistence given the absence of a national system of unemployment insurance.

composition of the nation's unemployment in this region.

¹¹ A.N. F¹ 13529, Ministry of the Interior note, *La Crise Économique et le Chômage*, 5 February 1931.

¹² J.O. Ch., 13 February 1931, p.705.

¹³ See Saly (1977, pp.303-21) for a full discussion of the parliamentary passage of the ill-fated Tardieu Plan.

If the communes had been quick to act for their unemployed, the central government, pressed by the reports of the Prefects and the Ministry of the Interior, was soon to follow. The National Economic Council was asked to draw up a series of measures to combat unemployment and these were presented in the optimistically entitled document "Measures to Deal with the Unemployment Crisis if Necessary".¹⁴ They, as they had done in 1927, recommended two principal measures: the control of foreign labour and public works programmes.

These two measures were to be implemented in tandem throughout the 1930s. The second Law for the Protection of National Labour was adopted by the Chamber of Deputies only a few days before the Laval programme of public works; the Marquet Plan of public works was put into operation in late 1934 and 1935, while at the same time, quotas on the proportion of foreigners in employment were being set for virtually all sections of the economy.¹⁵ These two measures were central to the governments' efforts to control unemployment and were clearly interlinked. They therefore form the first two, and most important, anti-unemployment measures to be considered in this Chapter.

No discussion of the measures introduced in the 1930s to combat unemployment could be complete without reference to the 40-hour week of 1937-1938. The Popular Front's strategy to eliminate unemployment was centred around the operation of the large-scale public works programmes (though halted in the 'Pause' of February 1937) and the forty-hour week, with no loss of pay. It is certainly the feature of the 1930s

¹⁴ J.O. Doc. Admin., 26 February 1931, pp.149-58. Conseil National Économique. *Mesures Susceptibles de Parer Eventuellement à la Crise de Chômage*.

¹⁵ Saly (1980, p.113) describes the control of foreign labour was the defensive aspect of a politic of

that has produced the most heated debates,¹⁶ so it will be considered in the third Section of this Chapter.

It must be remembered though, that these public policies were essentially work creation measures. The public works and the 40-hour week were intended to raise employment and the repatriation of foreign labour was, through their substitution in the workplaces by the unemployed French, intended to raise the level of employment of French workers. There could be no guarantee that the increase in employment would correspond exactly to a reduction in unemployment. The difficulties in determining how to measure unemployment, as described in Chapter One, thereby leading to its under-recording, illustrate how a large part of any increase in employment may not have come from the ranks of the *officially* unemployed. The government was powerless to affect this even though the central objective of these policies was to reduce *official* unemployment for essentially political purposes. The examination of the effectiveness of these policies can therefore only centre upon their effect upon increasing employment. The question of how they affected the level of unemployment itself is possible using a very different approach and this is done in Chapter Four.

This chapter seeks to address the question "Was unemployment so low in France in the 1930s because of successful public policy?" But that is a question which we can only in part answer. The other explanations of statistical mismeasurement and a lack

combating unemployment and the public works programmes as the offensive aspect.

¹⁶ The debate has not been so much as to whether it reduced unemployment or not, but whether it was the primary reason for the feebleness of the recovery in 1937. Sauvy (1967), Jeanneney (1967) and Asselain (1974) argue forcefully that it was a major supply constraint on the recovery, while Frankenstein (1980, 1982), Bavarez (1991) and Chapman (1991) have pointed instead to the stagnant

of social categorisation of unemployment are not dealt with here and so their effect cannot be quantified. Equally, the contribution of public policy to raising unemployment,¹⁷ as opposed to combating it, is also not dealt with here. Consequently, we cannot accurately say if French public policy, in net terms, alleviated or worsened the unemployment crisis. All we can do is evaluate how successful the governments' anti-unemployment measures were in reducing unemployment, via the means of increasing employment and whatever the reasons for the size of that pool of official unemployment. With this in mind, we turn to the first of these, the public works programmes.

3.1 Public Works Programmes

Although the provision of emergency relief works for the unemployed had been in operation since the end of the nineteenth century in Britain,¹⁸ France was an early pioneer of the politic of controlling the execution of public works projects to move counter-cyclically with the business cycle.¹⁹ A brief history of the French politic of counter-cyclical public works is therefore a useful starting-point for the discussion of the public works programmes of the interwar years.

level of investment throughout the 1930s and the implications this held for any recovery in 1937.

¹⁷ The decision to deflate rather than devalue has been almost universally condemned (though not at the time) as prolonging the French Depression (see Sauvy, 1967, Bavarez, 1991, and Mouré, 1991, for example). Contemporary authors, such as Jacques Rueff, warned against the unemployment-increasing effects of unemployment benefits (see Rueff, 1931). These issues are discussed further, if only briefly, in Chapter Four.

¹⁸ See Garside (1990, p.299). This work, he argues, was labour-intensive, required few skills and was particularly badly paid. As such, it was an expensive, but poor, remedy for unemployment.

¹⁹ See Popin (1934) for a comparison of the French governments' proposals for linking public works

3.1.1 Historical Background

The use of public works as a means of combating unemployment has its French roots in the last decade of the nineteenth century. Indeed, it could hardly have been effected earlier as it was only in this decade that the concept of 'unemployment' itself was actually formalised.²⁰ It is true that there had existed early forms of works projects, both charitable (*les ateliers de charité*) and public (*les ateliers nationaux*), in the periods 1789-1794 and 1848-1850,²¹ but both of these had public order goals: to reduce the amount of begging. Consequently, they were "marked by a stigma of poverty and pauperism".²²

As in 1931, government steps to initiate counter-cyclical public works were preceded by the local authorities. In 1896, while Edouard Vaillant had been successful in forcing the Minister of Commerce to send a circular to all local authorities recommending the creation of public works, the Labour Office was already commissioning a study of the public works that had been organised by those same local authorities during the previous six years. The study found that a very large number of communes had already been organising manual work for their unemployed; in a large number of cases this had been rock-breaking during the summer months and snow-clearing in the winter.²³

projects to unemployment and those of other countries.

²⁰ See Reynaud (1994) for a discussion of the government statisticians' attempts in the 1890s to separate the economically inactive into two groups: the unemployed and the vagabonds. The result is that, for the first time, the population census of 1896 is able to identify the numbers of unemployed workers in the economy.

²¹ See Saly (1977, pp.89-93) for a discussion of these measures.

²² Edouard Vaillant, J.O. Ch., 21 January 1896, p.24.

The 1890s also saw the re-emergence of the charitable works organisations (*les Sociétés d'Assistance par le Travail*). The first was created in 1892 in Marseille and by 1895, according to a *Conseil Supérieur du Travail* survey, there were forty in the whole of France, of which twenty-two were in Paris.²⁴ However, the survey also found that they, like their predecessors, and in contrast to the municipal works programmes, paid their workers very modest sums and that the work amounted to 'little more than a simple test to distinguish the impostor who begs through laziness from the unfortunate who is genuinely unable to find work'.²⁵ As a result, the *Conseil Supérieur du Travail* was keen to point out in the Introduction to its survey that the public works term '*assistance par le travail*' should be reserved solely for public works projects, while the works provided by the *Sociétés d'Assistance par le Travail* should be considered as '*aumône moyennant travail*' ('charity work').

The sharp distinction between the public and the charity works is clear, with the latter being more in common with the British relief works of the same period (see footnote 18). Indeed, the Ministry of the Interior asked the Prefects to monitor the *Sociétés d'Assistance par le Travail* in order to prevent them from abusing the concept of charity and forcing people to undertake work in return for any assistance.²⁶

Unemployment, having peaked at 768,000 in February 1895, was rarely to rise above 300,000 in the next two decades before the First World War.²⁷ Edouard Vaillant's

²³ Office du Travail (1896, pp.95-154). For a good history of the short-lived Labour Office, see the volume by Luciani (1992).

²⁴ Conseil Supérieur du Travail (1896, p.207).

²⁵ *Ibid.*, p.IX. For a survey of the efforts of the French authorities to distinguish between the genuinely unemployed and the vagabonds, and of the resulting differences in their treatment, see Guitton (1994).

²⁶ Ministry of the Interior circular, 8 November 1894.

²⁷ Villa (1993, Series PDRE, pp.463-66).

continued efforts to commit the government to counter-cyclical public works programmes were therefore doomed to failure. However, in 1907, in replying to Vaillant's latest allocution in favour of such an unemployment measure, the new Minister of Labour, René Viviani, surprisingly declared that he was in agreement with Vaillant on the principle and announced the creation of a *Commission des Crises Économiques*.²⁸

The decree of 31 March 1908 instituted the Commission whose objective was to "find out if it would be possible to divide the work projects of the public authorities in such a way as to compensate for the reduction in private works at times of economic crisis."²⁹ The response from the various government ministries was not supportive, even the Ministry of Public Works expressed strong reservations. The Ministry of Public Works evaluated the amount of work susceptible to be accelerated or delayed at only 40 million francs.³⁰ The Commission was disbanded in 1911 and the politic of counter-cyclical public works was to remain dormant until after the First World War.

3.1.2 *The Measures Proposed*

From the previous discussion, it is clear that the support for the public works programmes was as counter-cyclical as the programmes were supposed to be themselves. It should not therefore be surprising that the implementation of these programmes was not effected to any great degree until the 1930s. The measures under consideration in this Section therefore relate primarily to those of the 1930s.

²⁸ J.O. Ch., 11 November 1907, pp.2129-35.

²⁹ J.O., 3 March 1908, p.2357.

³⁰ Ministère du Travail (1910, pp.67-71).

A second observation thus far would be that the local authorities operated quite independently of the central government with respect to public works programmes. While these would be more accurately described as relief works, these were not the demoralising, low-paid and wasteful relief works in operation in Britain at the turn of the century.³¹ The measures undertaken by the local authorities will therefore be discussed separately from those proposed by the central government.

3.1.2.1 Large-Scale Public Works

The economic recession of 1921 provided the first opportunity for the government to enact a counter-cyclical public works programme, and indeed the Ministry of Labour put out a circular on 14 December 1920 to "find out if it was possible for the services of the State, the *départements* or the communes to put into operation public works capable of providing work to those workers laid off".³² However, the short duration of the recession limited the need for a centralised plan of public works.

The government was more active in 1927. As in the previous recession, the various heads of State services were asked to speed up the commencement of certain projects,³³ but the difference in perspective was that in 1927 the government asked the

³¹ However, Garside (1990, pp.299-309) reports that there was a shift in ideas away from the old-style local authority relief works in Britain in late Edwardian period. After the First World War, the Labour Party and the TUC advanced the idea of advance planning of public works, but this was rejected by the governments of the early 1920s in favour of emergency relief work. These relief works were different to those of the Victorian and early Edwardian era though, being subsidised by the government body, the Unemployment Grants Committee (UGC). Their failings in the 1920s, however, led to claims that they had become no better than those of the previous period.

³² *Bulletin du Ministère du Travail, Partie Officielle*, 1920, p.145.

³³ These were the heads of the Ponts et Chaussées (road building), the waterways and the maritime ports, and the Génie Rural (agricultural works). Ministry of Labour circular, *Bulletin du Ministère du Travail, Partie Officielle*, 1927, pp.96,100.

newly-formed National Economic Council to draw up a programme of *additional* public works to combat unemployment. The Council's proposals were published in late February,³⁴ but given that the number of *demandeurs d'emploi* peaked only a few weeks later, it is not surprising that they were not put into effect. The precedent had been set though, during the economic crisis of the 1930s the government would repeatedly turn to the National Economic Council for proposals on additional public works to be effected.

In the meantime, the new premier André Tardieu presented to the Chamber of Deputies a programme of public works.³⁵ These works were no counter-cyclical demand-side measure - France was still in the midst of an economic boom - but aimed at increasing aggregate supply. The sums involved were rather small though: five milliard francs over a period of five years, the majority of which was to be financed by the surpluses in the Treasury reserves.

It was on these grounds that the National Economic Council and the opposition parties rejected the proposals. Three counter-proposals were actually submitted to the Chamber, each of which entailed a greater expense than the Tardieu Plan, with much of the difference being met by increased government borrowing.³⁶ The government was on the defensive and forced to amend its proposals in June 1930. However, the sums available for expenditure still remained within the limit of five milliard, even

³⁴ J.O. Doc. Admin., 23 February 1927, pp.177-84. Conseil National Économique, *Rapport sur un Programme Susceptibles de Parer Éventuellement à la Crise de Chômage*.

³⁵ J.O. Ch., 7 November 1929, pp.2999-3001. The measures were coupled with tax cuts to form what Tardieu termed, 'a politics of prosperity'. Saly (1977, p.307) argues, however, that these proposals had less to do with increasing the nation's capital stock than they had to do with attempting to disarm the Left and gain support from the Radical Party for his return to the Government.

³⁶ J.O. Doc. C. 2677, 24 December 1929, pp.428-31; J.O. Doc. C. 2811, 29 January 1930, pp.51-57.

though it tried to argue that if the expenditure of the local authorities were included, the budget would rise to 16 or 17 milliard francs over five years.³⁷ The Chamber remained unconvinced and only the first article of the modified bill had been voted by the time Tardieu's government had fallen on 4 December 1930.

Unemployment had been slowly starting to rise, and it did so more strongly in the winter months of 1930-1931. In turn, the public works programmes were slowing moving away from aggregate supply concerns to those of aggregate demand. The direct link between public works and the battle against unemployment was re-established in early 1931 and it remained so for the rest of the decade.

The new government of Théodore Steeg came and went within a month, but in the intervening period the Chamber of Deputies voted unanimously for an immediate credit of 670 million francs after the Minister of Public Works had highlighted the risks of unemployment.³⁸ Unemployment had risen from 13,000 in January 1930 to 45,000 in January 1931 and the National Economic Council was asked to examine measures that could be undertaken to limit the rise in unemployment. Among other measures, such as the control of foreign labour and a promotion of the 'return to the land', the recommendations included the inauguration of a series of projects "capable of providing work to a large number of workers and, as far as possible, to those workers most at risk from unemployment".³⁹

J.O. Doc. C. 2995, 12 March 1930, pp.257-63.

³⁷ J.O. Doc. C. 3388, 3 June 1930, pp.844-46.

³⁸ J.O. Ch., 17 January 1931, p.87.

³⁹ J.O. Doc. Admin., 26 February 1931, pp.149-58. Conseil National Économique, *Mesures Susceptibles de Parer Éventuellement à la Crise de Chômage*.

With the seasonal downturn in unemployment in April 1931, the government stalled on acting upon the recommendations. However, once unemployment began to rise again in October 1931, the pressure for action returned. The government, now headed by Pierre Laval, announced a fresh batch of expenditures totalling three milliard francs for 1932 alone, three times the annual level envisaged by the Tardieu Plan.⁴⁰

The Laval Plan was announced as audacious, but the rhetoric defied the reality. Lucien Lamoureux, the *Rapporteur*, demonstrated that of the three milliard francs of proposed expenditures, 800 million francs had already been spent.⁴¹ Of the remaining credits of 2.2 milliard francs, continued Lamoureux, a great deal of this was used merely to cover individual budget deficits that had resulted from Laval's unattainably deflationary Budget. It was therefore little more than an exercise in balancing the Budget and was dismissed by the National Economic Council as a "very partial remedy to the present crisis."⁴² Nevertheless, the Chamber approved Laval's bill.

Following the elections of May 1932, Edouard Herriot formed the next government and he brought with him new expenditure programmes for the coming fiscal year. However, Herriot was still haunted by the memory of the Treasury crises of 1925-1926 that had been fatal to his Cabinet. Deflation was the first pre-occupation and it needed to be, the predicted budgetary deficit for 1933 was eight milliard francs. It was to be covered by increased taxation, action against tax fraud and by reducing expenditure on civil servants and pensions. Nevertheless, the Budget proposals also

⁴⁰ J.O. Doc. C. 5523, 8 December 1931, pp.32-33.

⁴¹ J.O. Doc. C. 5657, Report Lamoureux, 17 December 1931, pp.177-91. For example, cites Lamoureux, the budget for school construction had been 71 million francs, but expenditure had already risen to 450 million francs (p.179).

⁴² J.O. Doc. Admin., 13 December 1931, p.1431. Conseil National Économique, *Le Nouveau*

involved 3.4 milliard francs of 'exceptional expenditure intended to stimulate economic activity'.⁴³

This was something of a misnomer. Herriot's proposals were thus greeted with little enthusiasm by the Chamber and the National Economic Council met the following day to bring to the attention of the Government a proposal for a public works programme that could be executed immediately, but without being a great strain on the Treasury.⁴⁴ Whether the government heeded the advice or not is unimportant, it was to fall within a month.

The following year, 1933, was to be notable for a lack of new initiatives on the question of counter-cyclical public works. From the fall of Herriot to the government of Gaston Doumergue (14 months), there were five different heads of government. Of these fourteen months, the first Edouard Daladier government occupied nine. For the other governments, there was simply no time for legislation to be enacted, but the opportunity existed for Daladier. Instead, he placed budgetary deflation at the centre of his legislative priorities.⁴⁵ In fact, although Daladier did finally present proposals for public works programmes to combat unemployment,⁴⁶ his government fell one

Programme d'Outillage National et le Chômage.

⁴³ J.O. Doc. C. 771, 8 November 1932, pp.55-68.

⁴⁴ These proposals are contained in J.O. Doc. Admin., 17 November 1932, pp.1261-63. Conseil National Économique, *L'Exécution Immédiate de Certains Grands Travaux Publics en vue de Remédier au Chômage.*

⁴⁵ As Jackson (1985) points out, though, at the start of Daladier's premiership he had no other alternatives available to him:

"The state of the treasury was disastrous: on 31 January available funds were exhausted; on 3 February, the day of the Ministerial Declaration, the Treasury account was in deficit by about 350 million francs, and Bonnet, the new finance minister, after appealing to 80 different banks for funds, was forced to contract a loan from Holland... Bonnet later recalled that during February 'we were at one time living from day to day'" (p.66).

⁴⁶ J.O. Doc. C. 2406, 17 October 1933, pp.41-47.

week later.

The most notable public works programme of the 1930s was the Marquet Plan of 1934. Adrien Marquet was the Socialist Minister of Labour in the Doumergue government. His 'Plan' had two elements,⁴⁷ of which the first was the institution of the *Fonds Commun de Travail*. This fund functioned outside the Budget, being managed by the *Caisse des Dépôts*, and its resources came from the channelling of 75% of the total resources of the *Assurances Sociales* into this fund (until 1940). Its resources were available to organisations (both public and private) that would be executing works projects with the view to reducing unemployment. The second decree-law set up the National Public Works Commission that had the power to grant these loans.

The Marquet Plan was amended by the law of 7 July 1934 which enabled the State to participate in this public works programme.⁴⁸ By this law, the State was able to borrow up to 2.9 milliard francs from the *Fonds Commun* through the intermediary of the local authorities in order to finance public works programmes.⁴⁹ As this loan would be serviced by annuities, the State could itself effect public works projects without needing to increase its expenditure in the short run. In addition, the Law of 7 July 1934 also allocated a budget of 2.3 milliard francs to be drawn from the *Fonds Commun* for the extension of the railway system.

With the resources of this fund estimated to reach ten milliard francs over the course

⁴⁷ The two decree-laws are contained in J.O., 15 May 1934, pp.4807-08.

⁴⁸ J.O., 7 July 1934, p.6851.

⁴⁹ However, 425 million francs of this sum was used to cover expenditures already made by the

of six-and-a-half years, there remained an estimated five milliard francs for use by organisations to set up public works programmes for the unemployed. This represented average annual credits of 750 million francs, as opposed to 380 million francs for the government.

By mid-1935 the Marquet Plan did not appear to be achieving the desired results and so was amended considerably.⁵⁰ Expenditures on projects supported by the Marquet Plan were reduced sharply by 870 million francs, and the emphasis moved away from large-scale public works in favour of agricultural and forestry projects.⁵¹ However, the funds available to the government from the Marquet Plan were increased by 1.3 milliard francs.⁵² In a further effort to increase funds for public works programmes without incurring the costs (at least in the short run), the government set up a private lottery to generate funds for such projects in the formerly occupied regions.⁵³

The Marquet Plan remained largely intact for the two years until the election of the Popular Front.⁵⁴ It was thereafter superseded by the 'Blum Plan', which was much more ambitious, at least in rhetoric. The Law of 18 August 1936 "relative to the execution of a plan of works destined to combat and prevent unemployment" called on the government to outline by decrees "the administrative measures necessary for

Daladier government.

⁵⁰ This may have been a consequence of the Ministry of Finance imposing the condition that only profitable expenditure should be undertaken (Jackson, 1985, p.87).

⁵¹ Proposals for the overhaul of the Marquet Plan are contained in J.O. Doc. C. 5599, 28 June 1935, pp.1672-1705.

⁵² Laval's Decree of 4 October 1935, reported in J.O., 6 October 1935, p.10730.

⁵³ *Ibid.*, p.10731.

⁵⁴ There were numerous decrees emitted in this period regarding the Marquet Plan, but they related mainly to the provision of credit and did not alter the basic principles of the Plan. The Finance Law of 29 December 1935, on the other hand, would have put the financial future of the Plan into grave doubt had there not been the intervening election of the Popular Front. The Finance Law brought the special accounts of the public works programmes back into the aegis of the Budget.

the preparation and execution of a plan of large-scale public works amounting to a sum of 20 milliard francs, local authority expenses included, to be realised in three years in addition to the existing works programmes."⁵⁵

However, proposals on how the 20 milliard francs would be spent remained elusive. The Law of 18 August 1936 only gave details of credits of four milliard francs for the year 1936 and many of the decrees were not issued until November. Despite the existence in principle of 20 milliard francs for public works projects, the reality was rather different - Saly (1977, p.376) estimates that the Blum Plan created additional credits of only several hundred million francs, and it was to get even lower in 1937. In February of that year, the 'Pause' began and credits for public works programmes ground to a halt.

There was a temporary reprieve for the public works programmes in 1938. Daladier announced a 'Plan of Rural and Urban Works' of 11 milliard francs, of which 6 milliard francs would be spent by the government and 5 milliard francs by the local authorities, to be paid back over a period of five years.⁵⁶ However, there was a complete reversal in policy after the Munich Agreement and the new Minister of Finance, Paul Reynaud, announced a complete suppression of future credits for public works programmes and a negotiation of a reduction in the expenditures already contracted.⁵⁷ The death-knell of the politic of public works programmes had been sounded.

⁵⁵ J.O., 18 August 1936, p.9034.

⁵⁶ J.O., 25 May 1938, p.5861; J.O., 17 June 1938, p.6981; J.O., 16 July 1938, p.8564.

⁵⁷ J.O., 12 November 1938, p.12854.

The 1930s were therefore a period of much rhetoric pertaining to public works programmes, but few governments had actually provided the financial means for these projects to be put into effect. The local authorities had been quicker to provide work for the unemployed in the years before the First World War; did this trend continue in the interwar years?

3.1.2.2 Local Authority Works

In the absence of national public works programmes, the local authorities continued to provide relief works for those made unemployed during the recession years of the 1920s. This was the case in 1921, and more so in 1927. The works were primarily established by the communes, rather than the *départements*, and were concerned with the construction and maintenance of roads (often organised with the government service, *Les Ponts et Chaussées*), schools, prisons and local authority buildings in general. In more agricultural areas, irrigation and forestry projects were also common.

It is difficult to give a figure on the total level of expenditure of these programmes in 1921 and 1927, but the Parisian example gives a good indicator given the size of its municipal budget.⁵⁸ In January 1927, the Prefect for the Seine *département* announced the early execution of certain public works projects to provide work for the unemployed. These projects involved expenditures of 45.6 million francs, of which 14 million francs were earmarked for the extension of the Metro underground system to

⁵⁸ As Saly (1977, p.196) points out, although Paris accounted for only 7% of the French population, it accounted for 38% of all municipal expenditures. The size of the Paris municipal budget was to rise to 10% of the State budget in 1929.

cross the river Seine. Four further projects were commissioned in the next few weeks following the continued rise in unemployment, the credits for these projects totalling 109 million francs, and another project of 50 million francs, the extension of the Metro line 8, was ready to be initiated if required.⁵⁹

The resources made available for public and relief works was therefore considerable, especially given the absence of a national public works programme to alleviate unemployment. Nevertheless, these were largely 'extraordinary' expenditures and could not have been sustained if the economic crises of 1921 or 1927 had been more persistent. The municipal and *départemental* councils were faced with a crippling financial crisis throughout the 1920s.⁶⁰ Consequently, the various government proposals for public works programmes during the 1930s were largely accompanied by proposals for easing the financial constraints on local authorities for their works projects.

There were three notable government proposals to generate funds for local authority works.⁶¹ The first was the *Caisse de Crédit aux Départements et Communes pour le Perfectionnement de l'Outillage National, Départemental et Communal* which was created by the Laval Plan and had a fund of 300 million francs.⁶² The funds were to be used to pay some of the loans undertaken by local authorities to create public works programmes for the unemployed. However, the scope was rather limited. The

⁵⁹ A.N. F¹ 13527, Préfet de Police, *Note Complémentaire Relative au Chômage dans le Département de la Seine (Travaux)*, 4 March 1927.

⁶⁰ The annual budget deficit of the local authorities reached a post-war minimum of 3.4 milliard francs, though this rose consistently each year to a peak of 12.3 milliard francs in 1936 (Villa, 1993, series BFG3, p.498).

⁶¹ The most ambitious of them all, the Daladier Plan, is not considered because of its very early abortion.

proportion of the loan able to be met from *Caisse de Crédit* funds was set at 5.2% in 1932 and 6% in 1933, while the size of the loan able to met from these funds was set at 1.5 milliard francs in 1932, 750 million francs in 1933 and 300 million francs per year thereafter. The *Caisse de Crédit* therefore created at most a supply of 78 million francs in 1932, 22.5 million francs in 1933 and 18 million francs per year thereafter for local authority works programmes.

A similar scheme was introduced by the Law of 23 April 1932 which provided a budget of 200 million francs in 1932 to help the local authorities with their loans for public works commissioned to aid the unemployed.⁶³ To qualify for these loan 'bonuses', the local authorities had to satisfy three conditions:

- i) The projects for which the loans were contracted had to be approved by the Ministry of the Interior before their commencement;
- ii) The number of *chômeurs secourus* had to represent more than one per cent of the legal population in the locality;
- iii) Three-quarters of the workers employed on the projects had to be unemployed and French; in addition, they had to have been in receipt of unemployment assistance for at least one month. The work was to be paid at the same rate as other workers in the region currently undertaking the same type of work.

The law was amended by the decree of 16 September 1932 to allow the funds to be used to cover part of the wages bill for the municipal public works programmes.⁶⁴ A maximum of 90% of the wages bill could be met from these funds, the higher the local unemployment rate and the proportion of the unemployed working on the projects, the higher the subvention.

⁶² J.O. Doc. C. 5523, 8 December 1931, pp.32-33. The creation of the *Caisse de Crédit* is detailed in the second part of the Law, articles 9 to 19.

⁶³ J.O., 23 April 1932, p.4322.

The resources made available by these measures were greater than those provided by the *Caisse de Crédit*, but the extreme complexity of the regulations delayed the execution of projects and limited their effectiveness.

The final proposal of note was the Marquet Plan which was expected to make available ten milliard francs for loans for public works projects. Of this total, five milliard francs were available for the local authorities (plus other organisations) over a period of six-and-a-half years. While the funds available from the Marquet Plan were considerably higher than those available from either of the two proposals above, they paled into insignificance against the actual expenditures of the local authorities on public works projects. For example, the municipal council of Paris and the general council of the Seine *département* voted in July 1934 for a series of projects costing 4 milliard francs in total.⁶⁵

The proposals to circumvent the financial crisis in the communes were therefore not particularly successful. The sums involved were rather small and the regulations were rather restrictive. Yet, despite the financial crisis, as in the 1920s, and the inadequacies of the government assistance, the local authorities were the main providers of work for the unemployed. As a Ministry of Labour study revealed:

"The *départements* and communes, in order to occupy their unemployed, have executed important works, but without benefiting from the laws and decrees on the matter; for the period 1932-1933, the level of their expenditures would have risen to more than 3.5 milliard francs; 20 million days of work would have thus been effected."⁶⁶

⁶⁴ J.O., 16 September 1932, p.10168.

⁶⁵ Details of the works commissioned are presented by Letellier *et al* (1938, pp.300-01).

⁶⁶ Cited in Letellier *et al* (1938, pp.303-04).

The expenditures of the local authorities, in practice rather than in provision, were larger than any put into practice by the central government.⁶⁷ Their forgotten contribution to the 'Battle against Unemployment' would be an interesting area for future research.⁶⁸

3.1.3 *A Remedy for Unemployment?*

The public works projects were designed to provide work for the unemployed, thereby directly reducing the level of unemployment. However, as the National Economic Council argued, these would have the additional effect of "assuring an income for the workers and would involve a non-negligible psychological effect of returning confidence to the workers."⁶⁹

While the psychological effect would have been of particular import to the Ministry of the Interior who were particularly concerned about the public order consequences of unemployment, the aggregate demand effects of the increased incomes could have affected unemployment in general. The size of this secondary effect may be significant and so deserves attention. The following appraisal of the unemployment-reducing potential of these programmes therefore considers both their direct and indirect effects on the economy in general.

⁶⁷ See Saly (1977, Table 2, pp.556-58). The sum of 3.5 milliard francs was only surpassed by the Daladier Plan of 1938, though this was only a proposal and the actual expenditures engaged were very much smaller due to the short life of the Plan. The relative magnitude of the planned expenditures of four milliard francs by the municipal council of Paris on additional public works is confirmed by this comparison.

⁶⁸ The only contribution to this area of research is the brief, but revealing, analysis of Delorme and André (1983, pp.37-38).

3.1.3.1 Employing the Unemployed

The preceding section has outlined the various proposals for public works programmes as (partial) remedies for unemployment. For the measures emanating from the government, the proposals and the finances involved have been well detailed, but for those proposals of the local authorities, there has been very little documentation available. Concerning the documentation on the *effects* of the public works programmes, there is a similar scarcity. As Saly (1980) remarks:

"The sources of the 1930s are singularly silent on the quantification of the effects of the large-scale public works. There are only vague generalities on the revival of business and moreso on the improvement of the tax base because the perspective was much more that of public finance than of aggregate demand" (p.723).

Any estimation of the effects of the public works programmes in this Section are therefore constrained to being only provisional in nature.

Before proceeding, it is worth defining the measure to be used. The unemployment-reducing potential of the public works programmes is measured by the percentage of unemployed on the public works schemes. Note that these percentages are against 'total' unemployment, defined to be the current stock of unemployed (*demandeurs d'emploi*), plus those on the public works programmes. Hence, the interpretation is that in any year y , on average, $x\%$ of the unemployed were to be found working on the public works projects.

⁶⁹ J.O. Doc. Admin., 26 February 1931, p.149. Conseil National Économique, *Mesures Susceptibles de Parer Éventuellement à la Crise de Chômage*

The most important *département* for unemployment, and for expenditures on public works schemes was the Seine *département*. The proportion of unemployed on the public works in this *département* would have had a large effect on the final figure for the economy in general. As outlined earlier, the Prefect of Police for Paris did not report to the Ministry of the Interior the information requested in its circular of 7 February 1931,⁷⁰ hence the only record of the number of unemployed working on public works schemes was that contained in a note to the Ministry in March 1927.⁷¹ It was reported that two thousand people would be working on the 'additional' public works projects in that month, representing a percentage of four per cent of 'total' unemployment. This is a particularly low percentage, but the note does conclude that the final number of people employed on the new projects could rise to be more than six thousand.

More importantly, though, is the number of people working on the Parisian public works programmes during the 1930s. As mentioned earlier, figures were not reported by the Prefects, but Letellier *et al* (1938) do present such figures for those projects supported by the Marquet Plan for May 1935 to July 1936. An average of nine thousand people worked on these projects in the Seine *département* throughout 1936, though this number did fall progressively from December to July 1936 to a total of little more than five thousand. These figures represent between four and five per cent of 'total' unemployment in 1935 and three per cent in 1936. As the Marquet Plan

⁷⁰ Instead, most of the files in the Archives relating to the Seine *département* are concerned with the activities of the Communists. As highlighted earlier, the Communist Party was somewhat more active and enjoyed more success in the capital than elsewhere, but as Jackson (1985, p.45) rightly observed "the activities of the P.C.F. and the C.G.T.U. [the Communist Party and Trade Union respectively] were closely, even hysterically, monitored by the Prefects".

⁷¹ A.N. F⁷ 13527, Préfet de Police, *Note Complémentaire Relative au Chômage dans le Département de la Seine (Travaux)*, 4 March 1927.

financed only a small proportion of public works projects,⁷² it would seem reasonable to suggest that at least the same amount of people may have been working on other projects. This would suggest that the percentage of the Seine unemployed on the public works schemes would have been at least nine or ten per cent in 1935 and at least six per cent in 1936.

Saly (1977, pp.365-66) also provides figures on the number of people employed in the Marquet public works in October 1935,⁷³ which is the month in which the peak in employment is reached: 61,795 workers, of which 52,864 were employed outside of the Paris region. Having found that the 8,931 workers on the Marquet schemes in Paris represented five per cent of 'total' unemployment in October 1935, which was to be at least doubled to gain an aggregate percentage for Paris, this ratio is dwarfed by that for the rest of France. The 53,000 workers in the Marquet schemes outside of the Seine *département* represented 18.3% of 'total' unemployment. Even if we assume that all public works programmes in October 1935 were commissioned by the Marquet Plan, outside of Paris, one unemployed person in almost every five was employed in public work in 1935. If we assume that the Marquet Plan subventionned one-half of all projects in October 1935, the ratio is at least one unemployed person in every three. This is a sizeable proportion.

A final indicator^{*} is given by the Ministry of Labour study of 12 April 1933 which reported that in the financial year 1932-1933, the *départements* and communes had

⁷² This was particularly so for this period as it was the projects due to be undertaken in the Paris region that were the main casualties in the 870 million francs reduction in Marquet loans in mid-1935 (J.O. Doc. C. 5599, 28 June 1935, p.1674).

⁷³ He cites the figures as relating to September-October 1935, but they correspond to those for Paris for October and not September 1935. It will be assumed for calculation purposes that the figures relate to

executed an important number of public works that had totalled twenty million working days. There existed a six-day working week at the time so after taking deductions for public holidays, the year involved approximately 300 working days. Division of the two figures reveals the estimate that an average of 66,667 people worked on the public works projects each working day of the year. Translated into a percentage against 'total' unemployment, it reveals that 21% of all unemployed were employed on the public works programmes in the financial year April 1932 - March 1933.

To check the validity of the Ministry of Labour's estimate that an expenditure of 3.5 milliard francs was equivalent 200 million days worked on the projects, consider the following construct. Even though Saly (1980, pp.732-33) concerns himself only with the 'public works' industry,⁷⁴ if we adopt his assumption that the wages bill represented 35% of the total expenditures,⁷⁵ and that the annual wage for a worker on these projects was 12,000 francs,⁷⁶ the expenditure of 3.5 milliard francs was

October 1935 alone.

⁷⁴ The name of this industry is somewhat misleading and rather confusing for the issue of public works programmes for the unemployed. The 'public works' industry was that division of the 'construction' industry group related to the Ministry of Public Works which was responsible for the construction and renovation of the national roads, waterways and maritime ports, as well as level crossings and bridges. The Ministry of Public Works was therefore equivalent to a modern-day British Ministry of Transport and the 'public works' industry was based on the national transport system. Construction of government buildings, for example, took place within the wider construction industry. Similarly, public works programmes were not executed exclusively within the 'public works' industry, only that part relating to the transport system. This needs to be borne in mind to limit any possible confusion, particularly as in the rest of this Thesis the industry shall be referred to as the 'public works' industry, and not re-named.

⁷⁵ Saly bases this on the Industrial Censuses of 1931 and 1951. However, in the note to the Ministry of the Interior detailing the public works projects for the Seine *département* for the first few months of 1927, the assumption made by the Prefect, who was responsible for commissioning the works, was that the wages bill would represent 60% of total expenditures. There is quite a difference between this figure and that of Saly, possibly reflecting in part the more labour-intensive projects put to effect when the explicit objective was to reduce unemployment (as in 1927). Nevertheless, to guard against overestimating the employment effects of the public works programmes, Saly's estimate will be used throughout.

⁷⁶ Saly actually assumes the annual wage to be 10,000 francs for workers on the Marquet public works. Given that he reports annual levels of Sauvy's (1967, pp.512-13) wage rates in 1931 for a bricklayer to

equivalent to an estimated average of 102,083 people employed on the public works projects each working day of the year. In other words, by this (cautious) alternative estimate, one unemployed worker in three was working on the public works projects each working day of the year.

How does this compare to other estimates? Saly (1980, p.733) concerns himself with the public works programmes of the government alone, as outlined in Section 3.1.2.1. His calculations point to the additional credits of 1.6 milliard francs for the Ministries of Public Works and the Interior⁷⁷ in 1932 (under the aegis of the Laval Plan) resulting in an extra 54,600 workers employed on the public works programmes for the whole of that year. For the expenditures of 2.3 milliard francs for the same Ministries under the Marquet Plan, this translates into an additional 39,953 workers employed for the two years after the first project was initiated (October 1934).

However, this concentration on the public works programmes of these two Ministries alone seriously underestimates the unemployment-reducing effect of the measures adopted by the authorities to find work for the unemployed. For example, the credits of these two Ministries accounted for only 57% of total civil credits under the Laval Plan, while their proportion of the total Marquet civil credits was similarly only 60%.⁷⁸ Indeed, for *all* public works proposals adopted in the 1930s, the credits voted for these two Ministries comprised only 45% of all credits voted and adopted.

be 13,000 francs in Paris and 8,840 francs elsewhere and for a navy to be 12,500 francs in Paris and 6,300 francs elsewhere, the annual figure of 12,000 francs is certainly erring again on the side of caution in order to not overestimate the employment effects.

⁷⁷ The Ministry of the Interior was responsible for the maintenance of local roads and so, with the Ministry of Public Works, were responsible for works that would have been undertaken by a Ministry of Transport (see footnote 74).

⁷⁸ Saly (1977, Table 2, pp.556-58). Note that the Marquet credits are deemed to be those originally

The three other Ministries to benefit largely from the governments' public works proposals were the Ministry of Agriculture (18% of credits voted and adopted in the 1930s), the Ministry of Education (18% of credits) and the Ministry of Public Health (15%). While the Ministry of Agriculture largely sought to employ the unemployed on forestry and irrigation projects, the latter two Ministries commissioned largely construction projects - the building and renovations of schools and hospitals. Given that the construction projects would be of similar labour-intensity to those commissioned by the Ministries of Public Works and the Interior, and that the agricultural projects would have been far more labour intensive,⁷⁹ Saly's estimates of the number of persons employed on the public works schemes can be increased by at least one-half to take account of all the projects undertaken by the government.

The revised figure of an average of 59,929 workers employed on the Marquet projects is consistent with the direct observation of 61,795 workers employed in October 1935, though it does imply that the overwhelming majority of projects supported by the Plan were commissioned by the government, rather than the local authorities. The legacy of local authorities providing work schemes independent of government financial initiatives seems to be persistent.

While Saly's employment figures for the Marquet Plan merely shed light on the mix of projects commissioned by the central government and the local authorities, the

proposed by Marquet in July 1934 (of which only 45% went to the two Ministries) and those additional credits proposed by Laval in October 1935 (of which 90% went to the two Ministries).

⁷⁹ See the structure of costs for the 'public works' and the construction industries presented in Saly (1977, Graph 3, p.565), using data from the 1931 Industrial Census. For alternative evidence on comparative labour-intensity consider the ratio of total capital stock to employment in both agriculture and the 'construction and public works' industry groupings: the ratio was three times higher in the 'construction and public works' industry than in agriculture over the whole of the interwar period

figures for the Laval Plan are in addition to those estimated earlier for local authority projects in 1932-1933.⁸⁰ Recall that we earlier estimated average employment on the local authority projects to be between 66,667 and 102,083, the above calculations indicate that for 1932 we can add 54,600-81,900 workers on government projects to these figures. For 1932, therefore, the average employment levels on the public works schemes of both local and central government are estimated to be 121,000-184,000 workers. This represents between 28% and 37% of 'total' unemployment.

It would appear that there was a sizeable proportion of the unemployed stock employed on the public works schemes. However, could this proportion have been constrained by an inadequate supply of the factors of production, labour and capital? The much-cited shortage of skilled workers in the abortive recovery of 1937-1938 highlights the need to look beyond aggregate unemployment statistics. Unfortunately, the published data does not differentiate between skilled and unskilled workers, but the disaggregation of the unemployment statistics by industry in Chapter Two does help to shed some light on the possibility of an (unemployed) labour supply constraint.

The structure of government credits voted and adopted in the 1930s, as detailed above, was as follows: construction (transport, residential and public utilities), 78% and agriculture, 18%. The remaining credits were insignificant and not easily attributed to particular industries. The structure of the projects in operation in 1935

(Villa, 1993, series KZU01, KZU07, EMPU01, EMPU07, pp.437,443).

⁸⁰ Note that the figures derived from by Saly, and amended above, were based on the credits of 1.6 milliard francs to the Ministries of Public Works and the Interior. If the actual expenses had been less than the credits allowed, and Saly is silent on this, then the employment effects would be smaller than in the calculations below.

with the support of the Marquet Plan was, however, rather different.⁸¹ construction, 66% and agriculture, 32%.

It can be expected that a reasonably large proportion of the works commissioned by the local authorities would relate to agriculture or forestry nature given the importance of these professions in the vast rural areas of France. Hence, Saly (1977) terms these types of works as 'traditional'. We would therefore expect that the structure of *all* public works projects would be similar to the Marquet Plan structure given above.⁸²

Another point of note that is not evident from the figures above is that 20% of all workers employed on works supported by the Marquet funds in mid-1935 were engaged in the construction/extension of the railways. As the railways were run by private railroad companies, the expenditures or the number of unemployed on the projects organised by these organisations have not been included in the calculations above, other than for the Marquet Plan figure. This may be justified given that these were projects run by private and not public organisations, but the financial assistance given to the railroad companies to organise these projects for the unemployed and the encouragement given to the employment exchanges to place their unemployed on these projects is evidence of a clear government objective on the issue.⁸³ Indeed, it

⁸¹ J.O. Doc. C. 5599, 28 June 1935, p.1673. Note that this division of employment by industry affected relates only to those works in operation outside of Paris; no such information was given for the Parisian projects.

⁸² It is worth noting, however, that the greater preponderance of agricultural works within the Marquet Plan was not a consequence of a heavy involvement of local authorities in the Marquet Plan, but of the shift in emphasis from public works to agricultural projects in mid-1935.

⁸³ As described earlier, these provisions were contained in the Marquet Plan, though this only stated explicitly a policy that had been in practise throughout the economic recessions of the interwar period - see the Ministry of Labour circular, 13 January 1921 (contained in *Bulletin du Ministère du Travail*, Partie Officielle, p.34). As a result, in that month, 750 unemployed workers of the Nord and Somme départements were employed on the special projects organised by the *Compagnie des Chemins de Fer du Nord*, leaving only 749 workers remaining unemployed (*Bulletin du Marché du Travail*, 24-29

was merely part of a public policy of finding work for the unemployed on projects to improve the nation's economic infrastructure, albeit that the only element of the transport system to be outside of the State's hands was the railway network. However, with a lack of information on the number of the unemployed working on these railroad projects, a re-calculation of the unemployment-reducing effects of the politic of public works programmes is not possible.

Returning to the question of the supply of unemployed labour, the figures available in Table 2.3 suggest that in the 1930s there was an abundance of unemployed workers previously attached to the construction industry (in its widest sense) and the widespread availability of public works programmes for these workers is also consistent with their relatively low durations, but rather high frequencies, of spells of unemployment (see Table 2.7). On the other hand, Table 2.3 reports a very low unemployment rate for agricultural and forestry workers, while Table 2.7 also shows that these types of workers, once unemployed, had very high exit probabilities.

There was certainly not a labour constraint for the construction projects, but there may have been for the agriculture and forestry ones. In the sense that much of the irrigation work could have been done by unskilled labourers, the constraint may not have been binding for the *Génie Rural*, but the forestry work did require skilled workers and so the effectiveness of the projects established by the *Services des Eaux et Forêts* would have been severely hampered. As Letellier *et al* (1938, p.296) report, when the Italian woodcutters were refused permission by their government to continue their annual summer migration to France, a great number of trees in the Savoie and Haute-Savoie

départements were not cut down as it had proved impossible to find the French workers able to do the job.

If a labour constraint existed in the forestry works projects, from the example of the woodcutters, it arose from the need for skilled labour. Without information on the supply of unemployed skilled labour in the construction industry and in agriculture, it is not possible to state that there was definitely no labour constraint in the rest of the public works projects, merely that it was very unlikely.

Two regulations on the workings of the public works programmes that had been already been applied by the local authorities on their projects,⁸⁴ were formally introduced into the government projects under the Marquet Plan. These were the prohibition of overtime working and limit on the proportion of workers not of French nationality.⁸⁵ These measures were intended to increase the unemployment-reducing potential of the public works programmes, at least for the unemployed French. To the degree that there was generally no labour constraint, these measures should have been effective.

With respect to any capital constraint on the employment-creating potential of the public works projects, it may be noted that the ratio of existing capital stock to employment in the construction industry rose steadily in the 1930s until 1936; in

⁸⁴ For example, the Prefect for the Ardennes *département* reported that he had, for a long time, limited the proportion of foreigners employed in the various State, *départemental* and communal services in his *département* to only 5%. (A.N. F⁷ 13544, Letter from the Prefect of the Ardennes *département* to the Minister of the Interior, 18 July 1932).

⁸⁵ Introduced by Decree of the Minister of Labour (J.O., 9 July 1934, p.6960). The proportion of foreigners on a project subventionned by the Marquet Plan was to not exceed 10% of total employment. Ten days later, this figure was reduced to 5%, with powers given to the Prefects to reduce

agriculture, on the other hand, the ratio remained stagnant throughout the 1930s but at a level higher than in 1929. Additionally, the constraint may be on the supply of new, rather than existing, capital. In this respect, Saly (1980, p.727) argues that it was relatively easy for the 'public works' industry to raise capital as and when it was necessary. This should apply equally to the rest of the construction industry, and presumably for agricultural needs as well. There is therefore little evidence of a capital constraint.

The availability of the factors of production appears to have not been a problem for most of the public works programmes of the 1930s. The only binding constraint therefore was the finances involved in the operation of the schemes and the ability of the local authorities, and the central government within a budgetary climate of deflation, to finance them. Nevertheless, the rather fragmentary evidence available on the employment levels on these projects does indicate that they did absorb a significant proportion of the unemployed stock. These direct employment effects, it is argued, would also have had indirect effects on the rest of the economy, either raising or lowering employment in the private sector. These additional effects of the public works programmes are now to be considered.

3.1.3.2 Secondary Effects

There were essentially three types of secondary effects from the public works programmes: those affecting the workers on the programmes themselves; those

it still further in their *départements* (J.O., 19 July 1934, p.7289).

affecting the industries economically connected to the public works; and those affecting the economy in general. We shall consider each in turn.

The National Economic Council argued that the provision of work would improve the self-confidence of the unemployed.⁸⁶ For the Ministry of the Interior, this was important for its objective of limiting the public order effects of the unemployment crisis, but there were also important productivity effects from these work projects. In the short term, the return of confidence to the formerly unemployed workers would have had the effect of improving productivity. In the longer term, the prevention of the loss of skills from enforced inactivity would have prevented a de-skilling of the labour force. However, with the extreme longevity of the unemployment crisis of the 1930s, the loss of skills was a process that could only be slowed, not halted, and the failure to overcome it came to act as a brake on the economic recovery of 1937-1938.⁸⁷

Even though the secondary effects on the workers seem to have been rather unimportant, the National Economic Council was to argue later that the public works programmes would also "help to sustain a large number of services and industries...on the condition that supplies of materials were ordered from French industry only."⁸⁸ Though the Council's argument was not heeded straight away - there were no new public works projects adopted by the government throughout the whole of 1933 - Marquet decreed in July 1934 that all materials and machines employed on the public

⁸⁶ J.O. Doc. Admin., 26 February 1931, p.149. Conseil National Économique, *Mesures Susceptibles de Parer Éventuellement à la Crise de Chômage*

⁸⁷ The shortage of skilled workers was a central theme in the Survey of Production of 1937, of which the main conclusion appeared in J.O., 16 December 1937, pp.13738-44.

⁸⁸ J.O. Doc. Admin., 17 November 1932, p.1261.

works programmes aided by his Plan would have to be of French origin.⁸⁹

Were a large number of services and industries sustained by the public works programmes? Saly (1980) thinks not. The 'public works' industry was not a heavy consumer of intermediate goods: according to the 1931 Industrial Census, intermediate goods formed 40% of the total value of products in this industry, but for the whole of industry, they formed 60% of total value. On the other hand, continues Saly, no industry was largely dependent upon the 'public works' industry: from the Economic Table of 1951, in the most dependent industries, brickworks and cement, only 22% and 19%, respectively, of commercial transactions were conducted with the 'public works' industry.

As discussed earlier, Saly's analysis considers only the 'public works' industry and not the wider construction industry or agriculture. But it can be assumed that the construction industry was also reasonably self-sustained, given the similarity of the structure of the two industries and that agriculture was even more so. The 'public works' and construction industries cannot be considered as 'Rostovian leading sectors',⁹⁰ so there still remains an absence of secondary effects from the public works programmes.

The final secondary effect to be considered is that upon the economy in general and is rooted in the concept of the fiscal multiplier, which has featured so prominently in the

⁸⁹ J.O., 9 July 1934, p.6960.

⁹⁰ See Rostow (1960). The central premise is that economic expansion within a narrow industrial front can produce generalised growth in the rest of the economy from the various dependent linkages involved - raw material inputs, demands for fuel, transport investment, employment created, etc.

debates on the Lloyd George proposal (1929) for combating unemployment.⁹¹ This literature has generally concurred on a value of the multiplier between 1.25 and 1.75 - if this were also valid for France, the employment effects of the public works programmes calculated earlier would be much larger.

Some evidence on the required 'marginal propensities' can be derived from Villa (1993, pp.260-62). The multiplier is estimated to be 0.84, primarily because of a very high marginal propensity to import (0.82). However, there is reason to doubt the robustness of this result: if the sample period is taken as 1920-1938, rather than 1921-1938, the estimated marginal propensity to import falls by one-quarter and the fiscal multiplier is calculated to be slightly greater than unity.⁹² One result of note, though, is that interest rates were found to be statistically insignificant in explaining either housing or non-housing investment.⁹³ This suggests that the 'crowding out' effects of the public works programmes should not have been particularly high.

It would appear that Saly's (1980, pp.740-41) conjecture that the multiplier was equal to one was accurate. Indeed, it would appear that there were minimal secondary effects resulting from the public works programmes; their direct effect was their only effect. So does that make them an expensive failure?

⁹¹ See in particular Thomas (1981), Glynn and Howells (1980) and the response from Hatton (1985). For a recent survey, see Garside (1990).

⁹² There is also the problem of a lack of dynamics in Villa's equations so these calculated values for the multiplier are for the long-term multiplier, which is expected to approach unity anyway. Villa does admit that this is a rather simple macroeconomic model (p.233), and as such these multiplier values should be treated as merely indicative.

⁹³ Dimsdale and Horsewood (1995) also found that interest rates could not explain variations in non-housing investment for interwar Britain, though they did find some effect for housing investment. The crowding out effects were therefore not particularly strong even in the presence of a nine-year fiscal expansion.

3.1.4 Value for Money?

To recap the discussion so far, it has been stressed that in terms of employment and expenditures on the public works programmes, the local authorities played the leading role, the additional expenditures by the government on these schemes being not particularly large and rather sporadic. There has only been very partial information on the numbers of workers employed on the schemes, but the indications are that in 1932 average employment on the schemes was in the range 121,000-184,000, of which 55% related to local authority schemes and 45% to government projects under the Laval Plan.

Concerning the average numbers employed on the projects supported by the Marquet Plan of 1934-1936, these appear to be in the range 38,000-60,000. It is not known how many were employed on the local authority schemes at this time, but the figures presented in the reports of the Prefects show that, for those *départements* for which calculation is possible, employment fell by 19% in 1934-1936 from the 1932 level.⁹⁴ This would translate into a figure of between 54,000 and 83,000, making the estimated average level of employment on the public works schemes of 1934-1936 appear in the range 92,000-143,000.

Concerning the percentage of the unemployed stock found to be in employment on

⁹⁴ A.N. F⁷ 13544-13548, 13558-13564; A.N. F²² 669-674; *Bulletin du Marché du Travail*, 1932-1936. The industrial *départements*, such as Loire and Rhône, had been the first to establish works projects at the start of the unemployment crisis and, despite the higher unemployment in 1934-1936, were those who were reducing the personnel on the schemes the most, 64% and 46% respectively. On the other hand, the more agricultural *départements*, such as Haute-Marne and Orne, had started up their projects much later, given the slower development of unemployment in the less industrial areas, and so were expanding the employment levels on the schemes more than in line with the increase in unemployment.

the public works projects, the figures are 28-37% of 'total' unemployment in 1932 and 17-26% of 'total' unemployment in 1934-1936. Despite the absence of additional secondary effects on employment, these proportions of the unemployed on public works are rather favourable by international comparison. Figures for two of the most celebrated government attempts to combat unemployment by public works programmes are presented below:⁹⁵

	1933	1934	1935	1936	1937	1938
Sweden	1.9%	9.3%	19.5%	24.0%	31.2%	26.0%
United States	14.6%	20.8%	22.5%	29.3%	26.4%	25.7%

As far as the Lloyd George proposal for combating British unemployment was concerned,⁹⁶ the consensus within the literature is that if implemented, it would have reduced unemployment by merely ten per cent.⁹⁷ The silence on the French experience appears misplaced.

Naturally, there are provisos. The first of which is the fact that the official

an average of 163 workers in 1934-36 as against 5 in 1932 in Haute-Marne, and 249 as against 31 in Orne.

⁹⁵ The source for the United States is Darby (1976), while for Sweden the sources are Gustafsson (1993) for the employment levels of the public works programmes and Möller (1938) for the unemployment levels up to 1937. Galenson and Zellner (1957) find the Swedish unemployment rate to be the same in 1938 as in 1937, so it assumed that the unemployment level is also the same in both years. Note that we have excluded those workers on relief works as they had more in common with the charity works in France than the public works: they were very poorly paid, the work was targeted at the unskilled and were seen as a deterrent to unemployment (Gustafsson, 1993, pp.58-59). The emergency relief workers in the United States were, on the other hand, paid the prevailing rates for their unskilled work, argues Darby (1976, p.4), hence these were not a deterrent.

⁹⁶ See Keynes (1972) for the original economic presentation of the Lloyd George pledge on unemployment. An annual additional government expenditure of £100 million for three years would, they asserted, bring back into employment 500,000 workers.

⁹⁷ The calculations of Thomas (1981) and of Dimsdale and Horsewood (1995) are typical. They predict that employment would have risen by 329,000 and 302,500 in 1931 after a three-year programme of

the *demandeurs d'emploi* did not correspond with the true level of unemployment in the economy. Letellier *et al* (1938, p.37) suggest the official series be doubled in 1935 and this is generally applied as a rule of thumb, though should only be from 1932 (the first year of the unemployment crisis) onwards. The estimated unemployment-reducing effects of the public works schemes should thus be halved to 14-19% in 1932 and 9-13% in 1934-1936, still sizeable contributions but not spectacular.

The other proviso would adjust these figures upwards again. That is, the numbers of the unemployed that found employment on the unemployment works projects of the railroad companies are not included in the above calculations. In October 1935, 10,600 workers were employed on such projects supported by funds under the Marquet Plan. Not all railroad projects would have been under the aegis of the Marquet Plan, but it is not known what the total figure was or the total number of workers employed. Given that government funds encouraged and supported the functioning of these programmes, the numbers involved could be legitimately incorporated into the previous calculations into the effectiveness of the public authorities attempts to provide work for the unemployed.

The unemployment-reducing effects of the public works programmes can therefore be described as significant even if not sensational. But were these jobs bought at too high a price? For Britain, Garside (1990, p.314) reports that the Unemployment Grants Committee estimated that the cost of direct employment was 2,500 man-years for each £1 million spent, or alternatively, the cost of employing a worker on the public works for a year was £400.

£100 million extra government spending. The actual level of unemployment in 1931 was 3,252,000.

Comparison can be made with France for 1932 given the availability of the expenditure information: 3.5 milliard francs by the local authorities,⁹⁸ and 2.4 milliard francs under the Laval Plan,⁹⁹ making a total of 5.9 milliard francs spent on public works programmes in 1932. Earlier it was calculated that the direct (and total) employment effect of the public works programmes undertaken in 1932 was in the range 121,000-184,000. The cost of employing a worker on the public works projects for a year was therefore in the range 32,000-48,800 francs, of which 12,000 francs was the salary (see footnote 76). With a mean franc-sterling exchange rate of 89.21 in 1932, the cost of employing a worker on the French public works projects for a year was in the range £360-£547.

Given the stated preference of the higher employment figure, and thus the lower cost, the French public works were not particularly expensive to run, at least by international comparison. The employment effects can also be described as encouraging for - as the National Economic Council argued they could only be - a partial remedy for unemployment.

3.2 Repatriation of Foreign Workers

It was noted earlier that government measures to increase the provision of public works to combat unemployment were introduced at the same time as measures to

⁹⁸ Strictly speaking, the financial year was April 1932 - March 1933, but any bias from taking the year as January - December 1932 is not thought to be large.

⁹⁹ This figure relates to the credits voted and adopted by Parliament. It is merely assumed that all credits were spent in 1932.

regulate the foreign worker within the French economy. Together they were the *sine qua non* of public policy against unemployment in the pre-Popular Front 1930s.

The attractiveness of the foreign worker policy to the politicians of the time is summarised by Cross (1983):

"Discrimination against the non-citizen worker provided a relatively inexpensive and popular alternative to other forms of social crisis management. Public works, increased unemployment compensation, nationalisation or price supports were positive means of stimulating the economy, but they were also divisive. In contrast, most Frenchmen could rally to the nationalist appeal of blaming the foreigner for the depression and expelling him as a solution. Placing the burden of the depression on the immigrant served a conservative purpose: it placated French workers, who might otherwise seek structural reforms. It shifted the responsibility of unemployment onto the immigrant (for taking Frenchmen's jobs) and away from the economic decision-makers or the economic system itself" (p.87).

Given the anxieties of the Ministry of the Interior over the public order consequences of unemployment, it is not surprising to find that they sought to implement the foreign worker policy with the same zealotry with which they monitored the activities of the Communist Party.

The size of the immigrant population made the unemployment-reducing possibilities rather large.¹⁰⁰ However, the pool of foreigners within the French economy bore no resemblance to a pool of liquid whose volume could be reduced by simply removing the plug, the historical reasons for such a large immigrant population prevented this from happening. To these we now turn.

¹⁰⁰ As Herriot declared in 1934, "we [the Cabinet Committee for the Protection of French Labour] have committed ourselves to remedy a situation revealed by a comparison of two figures: 350,000 unemployed French workers on relief and 800,000 foreign workers with jobs" (*Le Temps*, 21 November 1934).

3.2.1 Historical Background

There are two histories to be explored to set the scene for the implementation of the foreign worker policy in the interwar period: the history of foreign labour controls and the post-war needs of the French economy for foreign labour. Each is discussed in turn.

3.2.1.1 Pre-1919 Controls on Foreign Labour

Although, foreigners had long been economically active in France,¹⁰¹ it could only be described as a country of immigration from the Third Republic onwards: the number of foreigners residing in France trebled from 1851 to 1886, at which point they numbered three per cent of the total population. Over four-fifths of these foreigners were from border countries, so migration flows were very sensitive to economic fluctuations.¹⁰² There was thus little political pressure for controls on foreign labour.

The economic stagnation of the 1880s and 1890s was pervasive and various municipal councils sought to regulate their employment of foreign workers.¹⁰³ Though these municipal measures were annulled by the government, and then re-introduced as a

¹⁰¹ Bunle (1943, p.65) cites the attempts of the French government to attract skilled foreign workers to assist in the creation of new industries in the seventeenth and eighteenth centuries, as the first evidence of organised recruitment of foreign labour.

¹⁰² The migration pattern of the *frontaliers* would have been particularly sensitive to labour market conditions, but in the absence of border controls, it is difficult to quantify these migration movements. The only indication is given by the population censuses which record a ten per cent fall in the immigrant residential population from 1891 to 1896, the 1891 level not being reached again until 1911.

¹⁰³ Didion (1911, pp.35-37) cites the examples of the Paris, Marseilles, Beziers, Dijon, Roubaix, Toulouse and Toulon municipal councils who sought to limit the percentage of foreigners employed in public works.

State measure by the Millerand decrees,¹⁰⁴ the clamour for controls brought its first result: the decree of 2 October 1888.¹⁰⁵ This decree required immigrants to register themselves with the town hall if they wished to remain more than a fortnight in that particular location. With unemployment remaining high until the mid-1890s, this decree was strengthened by the law of 8 August 1893 which shortened the period for registration to eight days and to only two days if moving on to another town.¹⁰⁶ This law was later amended by the law of 16 July 1912 to introduce the requirement that foreigners were in possession of a valid work permit.¹⁰⁷

The pre-1914 measures were therefore rather liberal with no effective regulation of foreign labour introduced. When there had been calls to impose border controls, the government had rejected them in the name of the reciprocal treaties that it had signed. The First World War was to change all of this.

With over seven million people mobilised for the war effort, the supplies of domestic, previously economically inactive, labour were inadequate. State action was needed. With the outbreak of war, wrote Mauco (1932, p.68) the State "became the recruiting agent, importer, allocator and controller of foreign labour". This labour was recruited from two very different sources: the French colonies of Africa and Asia (plus China) and the Southern European countries. Their treatment was also to be very different.

The 'colonials' were organised by a military agency, the *Service d'Organisation des*

¹⁰⁴ J.O., 11 August 1899, pp.5397-5399. The Millerand decrees gave the State, the local authorities and the welfare institutions the legal power to set a quota on the percentage of foreigners in their employment.

¹⁰⁵ J.O., 4 October 1888, p.4061.

¹⁰⁶ J.O., 9 August 1893, p.4173.

Travailleurs Coloniaux, and were subject to military discipline and pay. The European workers could not be commanded on military lines, so as a means of control they were issued in June 1916 with an identity card - yellow for farm workers, green for industrial workers. This card defined the geographical limits within which they could travel; if the worker changed location, a copy of his card was forwarded to the nearest police service. The identity card became permanent the following year with an additional means of surveillance: hoteliers were required to inform the local police within 24 hours of any foreigners in their residence.¹⁰⁸

With the identity cards centrally administered by the Ministry of the Interior and the issuance of identity cards dependent upon the possession of a valid work permit, the means of surveying and controlling the movements of foreign workers was established. This was merely a reflection of the watershed that had been reached in the State's philosophy on immigration during the First World War. The liberality of pre-war immigration was not to return after the War, regulation of the foreign worker became the norm.

3.2.1.2 The Post-War Need for Foreign Labour

The War was at its most destructive in North-East France, the nation's industrial heartland. But before the industrial base could be rebuilt, the lands had to be made habitable: over one thousand towns had been completely destroyed and a further three-and-a-half thousand war-damaged; in total 300,000 homes had to be rebuilt. The

¹⁰⁷ J.O., 19 July 1912, p.6410.

battlegrounds had to be cleared: over 200,000 miles of trenches had to be filled in and 230,000 miles of barbed wire had to be cut. The transport system also had to be re-established: 36,000 miles of roads, 600 miles of canals and 3,000 miles of railways lines were in need of repair.¹⁰⁹ With the introduction of the eight-hour day in 1919,¹¹⁰ the need for foreign labour became even more acute.

It was not only the industries of North-East France that faced labour shortages. As described in Chapter Two, 18,000 miners in Northern France left the coal industry in 1919 for less "repellent" occupations. With the industry already plagued by a shortage of French labour before the War, the only available source was foreign labour. The need for foreign labour was also evident to prevent the 'new' technology of the electrical and chemical industries becoming idle.

However, industry was not the only sector to suffer from the War. Indeed, agriculture suffered disproportionately: agricultural workers accounted for 51% of war losses, while accounting for only 45% of that population; the respective figures for industrial workers are 20% of war losses as against 32% of the population.¹¹¹ The labour shortage in the towns exacerbated this problem as the rural exodus accelerated in search of higher wages.¹¹²

French post-war needs were not simply economic needs either. For a whole century before the First World War, France had been suffering from a declining birth rate.

¹⁰⁸ J.O., 22 April 1917, p.3186.

¹⁰⁹ The figures are taken from Mauco (1932, p.89-90).

¹¹⁰ J.O., 25 April 1919, p.4266.

¹¹¹ The figures are taken from Fontaine (1925, p.58).

¹¹² The differential between the mean daily wage in industry and that in agricultural rose from 21% in

Oualid (1928, p. 1460) presents the following figures:

	1811-1820	1841-1850	1871-1880	1901-1910
Birth Rate (per 10,000 inhabitants)	318	274	254	206

The War merely accentuated this problem. From an average of 745,000 births per year in the period 1911-1914, this fell to an average of just 450,000 in the period 1915-1919.¹¹³ The deficit (from trend) of 1.5 million births was on the same scale as the total number of French war losses.

The foreign labour that came to be introduced in the 1920s was therefore young.¹¹⁴ The economic needs demanded prime age workers for the arduous tasks of reconstruction and the demographic needs demanded prime age couples for their fecundity.¹¹⁵

3.2.2 Regulating the Foreign Worker

The interwar period can be broadly split between the two decades within it. The 1920s saw a massive inflow of immigrants, stemming from two sources: the traditional migration flows of the border nationalities and the organised State recruitment of foreign labour for private industry. The 1930s, though, saw the State attempt to take

1911 to 32% in 1921. (*Bulletin du Ministère du Travail*, April-June 1922, p. 177).

¹¹³ The figures are taken from Gide and Oualid (1931, p. 98).

¹¹⁴ From the 1921 population census, 55% of the foreign labour force was aged between 20 and 39 years; the respective percentage for the French labour force was only 44%.

¹¹⁵ Compared to the French birth rate of 206 births per 10,000 inhabitants in 1901-1910, the Italian birth rate had been 299 per 10,000 and the Russian birth rate had been 409 per 10,000 (Oualid, 1928, p. 1460). The higher birth rates of foreigners continued while they were residing in France: in the mid-1920s, immigrants accounted for one-half of the net increase in the population (births over deaths), even though they comprised only one-fifteenth of the total population; in 1929, while there was a net

more control over migration flows. It organised the repatriation, rather than recruitment, of foreign labour and sought to close the borders to all foreigners not already in possession of a work contract. Regulation of the foreign worker therefore differed strongly between the two decades and so is discussed separately.

3.2.2.1 *The Liberalism of the 1920s*

The post-war years did not see a return to laissez-faire migration policies of the pre-war years; the State retained its wartime controls over immigration and used them whenever it deemed necessary. For example, in December 1918 the Ministry of the Interior repatriated *en masse* the 120,000 North African colonial workers introduced during the War.¹¹⁶ This was only the first phase of a policy of selective immigration.

Three months later the government started a series of inter-ministerial conferences on foreign labour. Learning from the experiences during the War, they rejected further recruitment of colonised labour in favour of the European nationalities, or at least those that had been allies of France during the War.¹¹⁷ The result was a prioritising of recruitment of foreign labour according to political considerations and professional aptitude: i) Italians; ii) Poles; iii) Czechoslovaks; iv) Portuguese; v) Spanish; vi) Greeks; vii) Russians; viii) Germans, Austro-Hungarians and Bulgarians.¹¹⁸ Bilateral

increase in the foreign population, there was an even larger net *decrease* in the French population (Mauco, 1933, p.777).

¹¹⁶ Bunle (1943, pp.77-78). The Asian immigrants were also repatriated, though with less zealousness given the geographical distances involved: of the 100,000 introduced during the War, only 6,000 remained by January 1921.

¹¹⁷ J.O., 27 June 1919, p.1844.

¹¹⁸ *Bulletin du Ministère du Travail*, January-March 1920, p.21. It is noticeable that this ordering does indeed reflect the differing degrees of quality of the foreign worker that were found by Pairault (1927)

treaties were sought after and obtained for three prioritised nationalities: Italy (30 September 1919); Poland (3 September 1919); and Czechoslovakia (20 March 1920).¹¹⁹ The more traditional sources of foreign labour were not ignored altogether, attempts to re-establish the pre-war migratory streams of the Belgians and the Swiss were made with the use of border immigration offices.¹²⁰

The organised recruitment of skilled workers and physically adept unskilled workers,¹²¹ who were no longer exclusively from border nations, was to force the government to react differently during the recessions in the 1920s as compared to during the late nineteenth century. It was no longer sufficient to allow the free migration of border immigrants to respond to labour market pressures, skilled workers had been obtained for reconstruction and it was imperative to keep them as long as there existed a longer-term economic need.

In response to calls for the government to displace foreign workers from their jobs, the Minister of Labour countered that the government was "continuing with the liberal principles that have so far governed the employment of foreigners within the French economy".¹²² The situation for foreigners seeking irregular entry to France was different. To regulate the unorganised flow of migration, the Minister continued, no entry would be allowed without a work permit. Those work permits would only be allocated to foreign workers if there was a shortage of comparable French workers in

with respect to nationality (see Table 2.15).

¹¹⁹ The delay in the signing of the Treaty with Czechoslovakia was over fears that the French attempts to recruit skilled construction workers would compromise their economic development. This remained a sticking point after the Treaty was signed.

¹²⁰ J.O., 6 August 1919, p.8221; J.O., 24 October 1919, p.11799.

¹²¹ Oualid (1929, p.178) identifies that in September 1922, 57% of immigrants employed in the reconstruction were skilled workers. See Chapter 2.3 for evidence of the superior physical aptitude of

the region in which the work was to be undertaken. Its effect was to reduce the number of official entries into France in 1921 by sixty per cent. Given the brevity of the recession, no further measures were required and the borders were soon re-opened.

By the mid-1920s it was becoming apparent that the rural exodus was concerning foreign workers as well. In 1927, there were 1,120,000 foreigners working in industry and 253,000 working in agriculture, but between 1918 and 1926 there had been 850,000 foreigners entering France to work in industry and 600,000 to work in agriculture.¹²³ All too often, though, the decision to leave agricultural work for the towns had been taken before the end of the contract.¹²⁴

Government action soon followed and it centred on the Identity Card that had been in operation since 1917. By the 11 August 1926 'Law for the Protection of National Labour', the employment of a foreign worker without a valid identity card was made illegal, as was the employment of a foreign worker in a profession other than that with which he obtained the identity card. In addition, employers were required to keep a register for the police of the foreigners that they employed. The occupational mobility of the foreign worker would be severely curtailed if these measures were enforced. But as there were no extra-funds made available for the Police and the Labour Inspectors to visit the two million firms within the economy or even the small

foreign workers over a large section of their French counterparts.

¹²² J.O. Ch., 11 February 1921, p. 718.

¹²³ Bureau International du Travail, *Chronique Mensuelle des Migrations*, April 1928, pp. 135-36.

¹²⁴ In a study of agricultural work arrangements in Dijon region, up to 18% of contracts had been broken by the foreign worker (Bureau International du Travail, *Chronique Mensuelle des Migrations*, November 1926, p. 493).

localities in which so many foreigners lived,¹²⁵ it was a law that could hardly be enforced.

The second economic recession of the 1920s followed a couple of months later. Not a product of structural difficulties within the economy, but of the attempt by Raymond Poincaré to stabilise the franc; the recession was expected to be of short duration. As they had done in 1921, the government closed the borders to workers seeking to enter without a valid permit and the effect on immigration was as before: a 60% reduction on the previous year.

In contrast to 1921, though, the government sought to actively encourage the unemployed foreigners to return to their home country. The railways companies were persuaded to offer half-price rail tickets for unemployed foreigners accepting repatriation. With the Ministry of Labour offering to pay the other half of the rail ticket,¹²⁶ the practise of a free rail ride to the border had been set in motion. Recorded repatriations jumped by 85% in 1927.

The rest of the decade experienced rapid economic growth and an increasing need for foreign labour. Although there were amendments to the identity card regulations¹²⁷ and a tightening of the extradition laws,¹²⁸ the last few years of the 1920s saw a return to the liberal regulation of the foreign worker. The success of the limited measures adopted in the recessions of 1921 and 1927 yielded optimism among contemporary writers. "Immigration has brought to our labour market an exceptional flexibility"

¹²⁵ Wlocewski (1935) reports that 42% of immigrants lived communities of less than 3,000 inhabitants.

¹²⁶ Bureau International du Travail, *Chronique Mensuelle des Migrations*, March 1928, p. 109.

¹²⁷ J.O., 23 July 1929, p. 8436.

declared Mauco (1932, p.461). That flexibility was soon to be put under tremendous strain.

3.2.2.2 The Discrimination of the 1930s

While the Depression had spread to most industrial countries by 1930, the first significant rise in unemployment was not to take place in France until the winter of 1931/32. Her relatively favourable employment situation thus encouraged many unemployed foreigners to cross the French border and seek employment. While only 21,500 foreigners had found jobs after irregular entry in 1928, this figure had risen to 44,000 in 1929 and to 70,000 in 1930.¹²⁹

Keen to limit antagonisms between the French and the foreign workers, the Government re-introduced the measures it had employed in 1927: the closing of the borders, the re-placing of foreign workers in agriculture and the repatriation of those for whom replacement was not possible.¹³⁰ The effect was clear: official entries fell by over fifty per cent in 1931 and by a further third in 1932, while the number of repatriations more than doubled in 1931 and rose again in 1932. This was also accompanied by a large number of voluntary re-migrations. "The majority of foreign workers were laid off as a result of completion of their work contract and have returned to their original country by their own means", wrote the Prefect for the Meurthe-et-Moselle *département*.¹³¹

¹²⁸ J.O., 11 March 1927, p.2875.

¹²⁹ *Informations Sociales*, 7 April 1931, p.320.

¹³⁰ J.O. Doc. C. 1018, 8 December 1932, p.580.

¹³¹ A.N. F⁷ 13538, Report of the Prefect for Meurthe-et-Moselle, March 1931.

This optimism that the administrative controls were achieving the desired results lasted throughout 1931. As late as December of that year, the National Economic Council confirmed its prior view that administrative controls and a re-placing of former agricultural workers in agriculture would be sufficient, given the particular labour needs of the French economy, especially in agriculture.¹³²

Unemployment began to rise in 1932 and even though extra resources had been made available to the Ministry of the Interior for the repatriation of foreigners (Chapter 79 of its budget) in 1932,¹³³ the level of repatriations effected in 1932 was only slightly higher than in 1931. Unemployment, however, quadrupled in 1932. The optimism of 1931 seemed premature and pressure mounted for more than just administrative controls.

The result was a second Law for the Protection of National Labour, adopted on 10 August 1932.¹³⁴ It re-affirmed the Millerand Decrees of 1899 that set a quota of 10% on the amount of foreigners employed in the public sector, but it also extended the *principle* of the 10% quota to private industry.¹³⁵ A quota would be set only if there was a petition from a labour or an employer organisation calling for its introduction. Not surprisingly, very few employer organisations petitioned for quotas to be set. It

¹³² J.O. Doc. Admin., 26 February 1931, pp.149,151-153; J.O. Doc. Admin., 13 December 1931, pp.1427-1428.

¹³³ J.O. Doc. S. 370, 18 March 1932, p.432. Of this increase in credits of 350,000 francs for the Ministry of the Interior, 100,000 francs had simply been transferred from the Foreign Labour Service within the Ministry of Labour to reflect the diminished need for the recruitment of foreign labour (J.O. Doc. C. 5834, 4 December 1931, p.1110).

¹³⁴ J.O., 12 August 1932, p.8818.

¹³⁵ The original proposal by the Radical Charles Lambert sought to introduce a quota of 10% into both industry and agriculture. It was largely rejected by the Chamber's Labour Commission and the proposal finally put forward for the vote was much more in line with the counter-proposal of the Centre Republican Lionel de Tastes: the exemption of agriculture from the quota system and the introduction of the quota in industry in principle only.

was also the case that only a small number of unions petitioned for the introduction of quotas in their industries, and it is noticeable that no national union in heavy industry, in which most of the foreign workers were concentrated, requested such a quota.¹³⁶

As Bonnet (1976, p.280) points out, though, as with the first Law, regulations were to be placed on the employment of foreign workers, but there were little prospect of the Labour Inspectors or the Police having the time or the resources to supervise its application throughout the whole of France and throughout the whole of industry. The Law was therefore intended to serve a parliamentary purpose for the government, rather than economic one.

In the meantime, the government continued with the administrative control of the foreign worker. In May 1932, the regulations concerning the identity card were further tightened and further obligations were placed on hoteliers to report to the police details of the foreigners in their residence.¹³⁷ These measures were aided by the sharp reduction in the proportion of work authorisations granted by employment exchanges,¹³⁸ without which the foreigner was unable to obtain an identity card.

While unemployment fell in 1933, it rose again in the winter of 1933/34 and much

¹³⁶ The reason for this apparent indifference of the unions to quotas can be explained in political terms. The large union confederations were organised along political lines, with the largest confederations, the CGT and CGTU, organised by the Socialist and Communist Parties respectively. Consequently, no Communist-controlled unions applied for a quota; the Communists were actively trying to recruit the foreigners, not expel them. Second, while the Socialist-led CGT did encourage its unions to request quotas, it did so with little enthusiasm; the Socialists formed were the main opposition bloc with the Radicals and so were committed "to protecting the immigrant from the nationalist onslaught" (Paul Ramadier in *Le Populaire*, 1 December 1931).

¹³⁷ Both these decrees appeared in J.O., 22 May 1932, p.5300.

¹³⁸ For example, only 32 per cent of work authorisations were granted in the Seine *département* in 1932. (Office Départemental de Placement du Seine, *Rapport du Conseil Général*, 1932, p.194; 1933, p.141)

more strongly in the winter of 1934/35. Political pressure mounted and with a more Right wing government in office, foreigners were the obvious targets. In November 1934, the Cabinet Committee for the Protection of French Labour was established with the objectives of:¹³⁹

- i) providing a closer surveillance of the borders;
- ii) reducing, by a more rigorous application of the law of 10 August 1932, the number of immigrants employed in commerce, industry and agriculture.

To this list, Bonnet (p.289) adds a third: unifying the Agricultural Labour Service with the Industrial Labour Service.

With regard to the first objective, the government decided not to grant identity cards to workers living abroad, but working in France, the *frontaliers*.¹⁴⁰ To stop them gaining access to French territory, funds were created for the employment of a further twenty-five border police.¹⁴¹ Regulations on the issuing of identity cards were tightened again. In November 1934, the government announced that no short-term card would be renewed unless the holder had been resident in France for more than two years and cards for a duration of more than eleven months would be no longer granted.¹⁴² With the law of 8 February 1935,¹⁴³ immigrants were prohibited from leaving the *département* in which they had obtained their identity card without the approval of the Prefect and they were required to obtain a new work permit at each change of occupation - previously this had been necessary only when renewing the

¹³⁹ *Le Temps*, 21 November 1934

¹⁴⁰ *Ibid.*

¹⁴¹ J.O. Doc. S. 610, 6 December 1934.

¹⁴² Bonnet (1976, p.291).

¹⁴³ J.O., 8 February 1935, p.1675.

(three-year) identity card.

To encourage the repatriation of the East Europeans, the Ministry of the Interior hired a transportation company, the *Union des Agences de Voyage*, to ship them to the frontiers of their home countries; previously they had been left at the French border.¹⁴⁴ The Ministry also demanded that the Prefects were more rigorous in expelling undesirable foreigners, reminding them that they could expel any immigrant, even those who had not violated a law.¹⁴⁵ By the decree of 31 October 1935, any immigrant who refused expulsion could face a prison sentence of up to two years¹⁴⁶ - previously the maximum penal sentence had been six months.

In 1935, the number of recorded entries to France fell by 21% to its lowest level in the whole interwar period - one-thirteenth of the level they had been in 1930. Similarly, the number of repatriations jumped by two-thirds, though this was still some way below the heights of 1931-1932.

With regard to the quota system, the Cabinet Committee for the Protection of French Labour decreed that all industries whose foreign workers comprised more than ten per cent of total employment, should submit a proposal for a quota. In comparison to the 72 quotas that had been set in the two years since the law of 10 August 1932, 170 quotas were introduced in the six months following November 1934 and 553 quotas were introduced in the two years following November 1934.¹⁴⁷ The displacement of the foreign worker from his employment was initiated in a grand manner; all that

¹⁴⁴ J.O. Ch., 29 November 1935, p.2257.

¹⁴⁵ PP 64, Ministry of the Interior circular, 18 January 1935.

¹⁴⁶ J.O., 31 October 1935, p.11489.

remained was for it to be enforced.

The five-year increase in the regulation of the foreign worker ended with the election of the Popular Front. It was not that the Socialists reversed the legislation of the previous period, but that their own legislation was conspicuous by its absence. There were a few minor amendments to the previous foreign worker policies, but these were then reversed in 1938 when the government came under conservative control again.

In October 1936, the Popular Front government had abrogated the geographical restrictions on immigrant mobility under the law of 8 February 1935,¹⁴⁸ but this was reversed in May 1938.¹⁴⁹ Similarly, the Popular Front's restriction on farmers hiring foreign labour was lifted in 1938.¹⁵⁰ If these were the only policies of note during the Popular Front period, there was only one more for the Daladier government in 1938: the decree of 17 May 1938 which allowed the Labour Inspectors to suspend the foreign worker quotas for individual firms.¹⁵¹

Throughout the whole of the interwar period, there had existed the means of control of foreign workers, the identity card and the work permit. To obtain an identity card required a work permit. It was through the refusal of entry to France of workers without a work permit that the government could regulate the flow of foreign labour. Additions to this 'classical' form of regulation only took place in the 1930s when legislation was enacted to displace the foreign worker from his employment. Given

¹⁴⁸ Bonnet (1976, p.303).

¹⁴⁹ J.O., 24 October 1936, p.11107.

¹⁵⁰ J.O., 28 May 1938, p.6000.

¹⁵¹ Ministry of Labour circular, 10 March 1937, *Bulletin du Ministère du Travail*, Partie Officielle, April-June 1937; J.O., 28 May 1938, p.6000.

that there was little scope for the public authorities to enforce the legislation on private industry, the success of the repatriation policy was dependent upon the co-operation of the employers. This is the subject of the next Section.

3.2.3 A Remedy for Unemployment?

The policy of 'exporting' unemployment can operate at two levels. On the one hand, it may merely involve the repatriation of unemployed foreigners, thus reducing the stock of unemployment by x , the number of repatriated foreigners formerly unemployed. Alternatively, it may involve the forced displacement of foreign worker from their jobs into unemployment, a condition from which they are repatriated. The vacancies that now ensue may be filled by y unemployed French workers (the foreigners have been repatriated), so unemployment is reduced by $x + y$. It is therefore the 'displace and replace' element of the repatriation policy. Given the statement of intent by Herriot in 1934 (see footnote 100), it was the latter course of action that the government initiated. This Section will therefore look at these two different strategies separately.

3.2.3.1 Displacing the Foreign Worker

As the first step in determining whether employers viewed French and foreign workers as substitutes or complements, their employment strategies with respect to both groups is examined first. It has already been discussed how large sections of

¹³¹ J.O., 24 May 1938, p.5830.

French industry and agriculture had to resort to the organised recruitment of foreign labour to alleviate the shortages in the domestic supply of labour. Foreign labour was not recruited to substitute French labour, but to complement it.

The other side of the employment coin is more important for a repatriation policy, though. Did foreign workers face discrimination in the ordering of lay-offs? If so, there would have been a greater pool of unemployed foreign labour susceptible to repatriation. If not, the active displacement of foreigners from their jobs would have had to have been more zealously introduced.

There was evidence of discrimination of foreigners very early in the interwar period. In response to the rise in unemployment in the immediate aftermath of the War, the Minister of Industrial Reconstruction ordered the dismissal of all the foreign workers in the State's armaments firms, with the requirement that any laying-off of French workers should take place only after all the foreigners had departed.¹⁵²

While such a drastic approach was not repeated in the rest of the interwar period, prioritising lay-offs was a common feature during economic downturns. In November 1920, for example, it was reported that "in order to avoid the unemployment of Frenchmen with families, the management [of the metallurgical firms of Jarville] has laid off first of all the Moroccans, the non-resident foreigners, and the unmarried Frenchmen who were recently hired."¹⁵³ The Prefect for the Isère *département* reported in early January 1927 that the industrialists were preparing to prioritise their

¹⁵² *Bulletin du Ministère du Travail, Partie Officielle*, January-March 1919, p. 13.16.

¹⁵³ *Bulletin du Marché du Travail, Le Marché du Travail en Divers Départements*, Meurthe-et-Moselle, 22-27 November 1920.

lay-offs to their foreign workers and to those workers who had previously worked in agriculture.¹⁵⁴ It was later reported in the *Journal Officiel* that the recommendations for the containment of unemployment within the Ministry of Labour circulars of November 1926 and January 1927 had been adopted widely in 1927. Among the proposals adopted were the placement of the unemployed on public works programmes and the reduction of hours of work to reduce the lay-offs of personnel, *especially the French* [my italics].¹⁵⁵

The practise was all the more prevalent in the economic crisis of the 1930s. Again, the *départemental* Prefects were asked to request their local firms to reduce lay-offs by reducing hours of work and to lay-off their foreign workers ahead of their French counterparts.¹⁵⁶ The reported ordering of the lay-offs in the industrial firms of the Meurthe-et-Moselle *département* was typical: first of all, single foreign workers were laid off, then the elderly French workers, followed by married foreign workers and finally married French workers.¹⁵⁷

The Ministry of Labour had advocated the laying-off of elderly workers ahead of married foreign workers as they were eligible for assistance from the Social Insurance Laws and so were not counted as unemployed. The importance of the distinction between the single and the married foreign worker can be illustrated by the example of the Municipal Council of Hirson which, in its session of 31 January 1931, decided that its foreign workers should be laid-off before its French workers, but that there

¹⁵⁴ A.N. F⁷ 13525, Report of the Prefect for Isère, 3 January 1927.

¹⁵⁵ J.O., 30 March 1928, p.3652.

¹⁵⁶ A.N. F⁷ 13535, Report of the Prefect for Gard, January 1931; A.N. F⁷ 13548, Report of the Prefect for Meurthe-et-Moselle, June 1932.

¹⁵⁷ A.N. F⁷ 13538, Report of the Prefect for Meurthe-et-Moselle, January 1931. Examples of this

should be a 'difference of treatment between the workers residing permanently with their families in France, as is the case with many Belgians, and the workers who live in canteens and have no intention of staying in France'.¹⁵⁸

Figures from the population censuses confirm the desirability of the more stable, married foreign labour force: the number of single foreign and naturalised workers in employment fell by 32% between 1931 and 1936, whereas the reduction in the married foreign and naturalised workforce was only 23%.¹⁵⁹ If we disaggregate by sex, the importance of the marital status becomes very clear for the continuing employment of foreign male workers: the number of single foreign and naturalised male workers in employment fell by 37% between 1931 and 1936, whereas the reduction in the married foreign and naturalised male workforce was only 25%. There was little difference according to marital status for the continuing employment of foreign female workers.

Foreign workers were thus the first and the main casualties of the Depression. This was particularly true in the larger firms. Fridenson (1972, p.207) reports that of the 30% reduction in the personnel in the Renault factories from May 1930 to February 1931, "the largest reduction had been carried out on the foreigners". Similarly, for the Pont-à-Mousson Company in the Lorraine, Baudant (1980) reports that the proportion

ordering of lay-offs are contained in the Reports until 1934.

¹⁵⁸ A.N. F⁷ 13528, Report of the Prefect for Aisne, March 1931. Reid (1993, pp.248-50) cites the examples of the metallurgical industries in the Lorraine and mining companies in the Nord and Pas-de-Calais that constructed housing and encouraging family immigration. The intention was to create a more stable labour force.

¹⁵⁹ The calculation is made on the foreign and naturalised workforce, as families were more likely to apply to be naturalised rather than return to their original country in times of recession. Looking at the diminution of the foreign workforce only would have overestimated the degree to which immigrant families left France.

of foreigners on the payroll was reduced from 53% in 1930 to 34% in 1935.¹⁶⁰

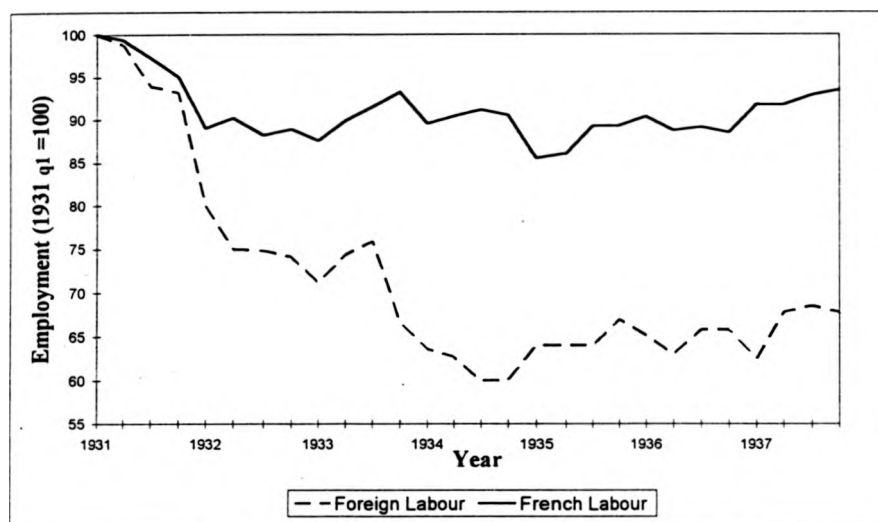
Information regarding the relative employment levels of foreign and French workers would be important in identifying the discrimination practised against the foreign worker. As reported in Chapter Two, it is not possible to disaggregate the unemployment series by nationality, but the requirement of the Prefects to record the number of employed foreign workers in their *département* in their reports to the Ministry of the Interior enables us to construct an employment series for foreigners for the years that the reports are available, 1931 to 1937.¹⁶¹ With construction of the employment series for French workers possible by using the Labour Inspectors' monthly employment series for large firms (greater than 100 employees) to interpolate between the population census observations,¹⁶² comparison can be made of the movements in employment of French and foreign workers. The two series are presented in Figure 3.1.

¹⁶⁰ Renault was by far the largest enterprise in France with over 30,000 employees in 1929, while the Pont-à-Mousson pipe manufacturers were in the next grouping of large employers with over 8,000 employees at its peak (Vinen, 1991, p.16).

¹⁶¹ Not all Prefects submitted their reports each month to the Ministry, so interpolation is necessary. However, using the series to predict the 1936 census figure from the 1931 census starting point provides a very accurate prediction - it underpredicts the actual value by just one per cent. It would appear to be a good indicator of the aggregate employment level of foreign workers in the 1930s.

¹⁶² The Labor Inspectors' series is first applied to the census observation for total employment to gain a measure of the movement in total employment. The series already obtained for foreigners is subtracted from this series to yield the employment series for French workers. Unfortunately, the employment pattern of the large firms was unrepresentative of the whole economy - the Labour Inspectors' series predicts a 21% reduction in employment between the two census dates when in fact it was only 10%. To adjust the series upwards accordingly it is assumed that the deviation between the two followed a linear trend. For the period after the 1936 census, if the linear trend in bias of the Labor Inspectors' series is continued, the calculated aggregate series (the calculated French and foreign series) strongly overestimates the growth in (annual) employment. The closest approximation to the 'true' growth in employment from 1936-1939 is achieved by applying the same linear trend growth post-March 1936, but in *reducing* the bias of the Labor Inspectors' series. In other words, the reduction in employment in the large firms was well above the economy-average during the depression, but by the same token their increase in employment outstripped that of the rest of the economy once the recovery began in 1936. The description of the above calculation has sought to highlight the difficulties involved in blindly accepting the Labour Inspectors series as representative of employment variation in the 1930s. Despite the use of an arbitrary assumption about the difference in the variations in employment of the large firms and of the economy as a whole, the above series are considered to be a far superior indicator of

Figure 3.1 Employment Levels of French and Foreign Workers, 1931-1937¹⁶³



Sources: A.N. F⁷ 13529-65; A.N. F²² 668-675; *Bulletin du Marché du Travail*, 1931-1938.

It is clear that although foreigners may have been displaced first within the workplaces, their French counterparts were not far behind. Indeed, a major deviance between the two series is not evident until the fourth quarter of 1931 when unemployment was beginning to rise very rapidly. Over the course of the whole decade, the employment levels of French and foreign workers appear to move together, so there is no direct evidence from Figure 3.1 that the reduction in foreign worker levels (the 'displacement') did lead to an increase in employment of French workers (the 'replacement'). It can be seen that with the employment of foreigners displaying a long-term downwards trend, the rate of discrimination - the rate of foreign worker decline in excess of that for the French worker - rose continually throughout the 1930s, albeit with a temporary peak in 1934.

aggregate employment in the 1930s than that of the Labour Inspectors.

¹⁶³ The series are indexed to simplify the figure. The starting values are 10,938,270 French workers and 1,230,160 foreign workers in employment (census figures). The minimum values are 9,352,550 French workers 1935 (q1) and 738,096 foreign workers in 1934 (q3,q4).

If there is no direct evidence of French workers replacing the incumbent foreign workers in the factories at this level of aggregation, an alternative source such as the population censuses of March 1931 and March 1936 may give rise to a different conclusion. While these have the disadvantage of providing only snapshots in (relatively distant) time, the two dates are conveniently significant for this particular question: the first date coincides with the State's first tightening of the administrative regulations concerning immigration, while the latter date generally coincides with the pre-Popular Front peak of constriction of the immigrant. They therefore provide a valid source of information on a before-and-after (the anti-immigrant legislation) basis.

The change in the employment of French and foreign workers from 1931 to 1936 is shown in Table 3.1.¹⁶⁴ The industry classifications are the same as in Chapter Two and there is a new measure: the replacement rate, which is defined as that proportion of the jobs vacated by foreign workers that were filled by French workers. It is the true measure of the effectiveness of the government's repatriation policy, the 'displacement and replacement' of foreign workers, where the discrimination rate applies only to the 'displacement' element.

¹⁶⁴ The figures in Table 3.1 are directly comparable to Table 25 in the much-cited "Immigrant Workers in Industrial France" by Gary Cross. However, there is one difference: Cross does not consider the white-collar worker to be within his definition of the 'Immigrant Worker'. True, only one immigrant wage-earner in eight was white-collar, but economically-speaking they were immigrant *workers* and so should be included in the analysis. In fact, relative to their French counterparts, the displacement of white-collar foreign workers was higher than for blue-collar-workers: a discrimination rate of 219% as against 182% for the blue-collar worker.

There is also an error in Cross' Table 25: he reports the percentage change in the employment of *total* workers as that of *French* workers. In other words, he does not subtract the number of foreign workers from the aggregate number of workers (published in the census) to gain the figure for the French workforce. Because of these shortcomings, Cross underestimates quite considerably the degree of discrimination of foreign labour: instead of a discrimination rate of 182% (a typographical error reports it as 87%), Table 3.1 estimates it to be 252%.

Table 3.1 Change in Employment of French and Foreign Workers by Industry, 1931-1937

	Change French (%)	Change Foreign (%)	Discrimination Rate (%)	Replacement Rate (%)	Foreigner Share (1931)
Forestry, agriculture	-13	4		-34	7.1%
Mining, quarrying	-15	-39	162		38.3%
Foods	2	-29		6	8.9%
Chemicals	-7	-44	530		15.0%
Rubber, paper	-14	-44	210		11.0%
Printing	-8	-31	279		4.4%
Textiles	-24	-44	86		8.2%
Clothing	-15	-24	60		6.5%
Leather goods	-20	-36	78		9.2%
Glass, ceramics	-28	-55	99		22.2%
Metallurgy, metal work	-15	-53	243		14.5%
Construction	-25	-53	110		20.6%
Transport, goods handling	-13	-21	57		3.0%
Commerce, finance	-8	-23	191		4.7%
Domestic service	-7	-9	32		7.7%
TOTAL	-10	-34	252		10.1%

Sources: France, *Résultats Statistiques du Recensement de la Population*, vol.1, no.4, pp.63-65 (1931); vol.1, no.5, pp.116-23 (1931); vol.1, no.4, pp.65-67 (1936); vol.1, no.5, pp.116-23 (1936).

The industry figures in Table 3.1 are consistent with the aggregate figures of Figure 3.1. The employment of foreigners and French nationals appear to have fallen together, albeit with a much greater fall in the number of foreigners in employment. The reduction in foreigner employment was 252% greater than that of French workers, so there is a strong suggestion of discrimination and that the 'displacement' aspect of the 'displace and replace' strategy was being implemented. This is a result found across all the industrial and commercial sectors of the economy, though it is only in the food sector that there is a partial replacement of these displaced foreign workers. Despite the efforts of the State, by March 1936 therefore, the unemployed French worker was being viewed as only a poor substitute for the displaced foreign worker.

It is noticeable that the degree of discrimination, and the size of the reduction in foreign employment, appears to be positively correlated with the share of foreigners within the industry's workforce. That is, the greater the foreign worker share of total industry employment in 1931, the greater the reduction of foreign personnel in the five years thereafter. This appears to be at odds with the results of Chapter Two.

From comparison with Table 2.12 we can see that the greater the foreign worker share of total industry employment in 1931, the lower was the unemployment rate of foreign workers. How can we explain the finding that the industries with the lowest foreigner unemployment rates laid off the highest proportion of their foreign workforce? The answer lies with the law of 10 August 1932 and its application from 1934 onwards.

All industries whose foreign workers comprised more than ten per cent of total employment had to submit a proposal for a quota. The above paradox relates to those industries having such a proportion of foreign workers. On the one hand, the dependency on foreign labour created a low unemployment rate, while on the other, the requirement that the size of the foreign workforce be reduced resulted in a large-scale laying-off of foreign workers.

Given that the prospects for re-employment (as a foreign worker) were virtually nil so long as the quotas remained, a return to the homeland would have been far more attractive than an indefinite period of unemployment in a repressive alien society. In some cases, as with the Polish miners, there was no choice over whether or not to remain in France.

The inadequacies of the census data are apparent from this example. The finding is consistent only with the enforcement of the law of 10 August 1932,¹⁶⁵ but it is not possible to confirm that the lay-offs were particularly discriminatory in 1934-1935. The need for disaggregated quarterly or monthly data is something to which we will return.

The other noticeable result from Figure 3.1 is the substitution of French agricultural workers with foreign workers. The increased foreign agricultural labour force is consistent with the implementation of the government measures outlined earlier to return former agricultural workers to the land or face repatriation. It was through the increasing use of the identity card that such checks on the former-agricultural workers could be made.

But what of the reduction in the number of French agricultural workers? This was not the rural exodus that had contributed to the chronic labour shortages in agriculture after the War, rather an unwillingness to return. When the Ministry of Labour offered half-price transport for unemployed French persons wishing to return to their place of origin to take up a job in agriculture, only 39 people took up the offer in the Seine *département* in 1935-1936.¹⁶⁶ Of those that did try agricultural work as an alternative to unemployment, many found that they could not adapt to the type of work and soon returned to the towns.¹⁶⁷

¹⁶⁵ With respect to miners, Reid (1985) and Escudier (1992) cite examples of the forced reductions in the employment of foreigners in 1934-1935 in the wake of the law of 10 August 1932.

¹⁶⁶ Letellier *et al* (1938, p.317).

¹⁶⁷ The placement of the unemployed in agriculture was a policy strongly promoted in the Somme *département* at the start of the economic crisis. However, it was found to be no more than a temporary solution as the unemployed did not stay very long on the farms. Of those placed in agriculture in the last four months of 1931, one-half had already been previously placed on the farms in the same way

Concerning the central question of the replacement of foreign labour by French labour, there is only evidence of a *negative* replacement in agriculture.¹⁶⁸ There is plenty of evidence of the excessive displacement of foreign workers, but as to the role that government measures played in achieving this, there is no concrete evidence, only inferences. The need for monthly disaggregated data is paramount to the appraisal of the repatriation policy.

One source that could meet these requirements is the bi-monthly and monthly reports of the Prefect of Police for the Seine *département* to the Minister of the Interior. As mentioned earlier, the Prefect for the Seine *département* did not reply in the requested format, preferring to keep the Minister up-to-date with the activities of the Communists, though he did initiate a survey of the levels of employment and the hours of work in a number of Parisian firms in February 1931. The results of these surveys were passed onto the Minister of the Interior and provide a final data source to be considered.

From January 1932 to the last of the reports in September 1937, the data on the number of workers employed in these firms was split into two categories: French and foreign workers. It can therefore provide a very useful insight into the relative movements of employment at the level of the firm and how they may have been affected by the legislation in force.

The sample covers 54 firms in ten industries for the period January 1932 to September

only to returned to the towns, "not knowing how to adapt to work on the farm" (A.N. F⁷ 13542, Report of the Prefect for Somme, September-December 1931).

¹⁶⁸ The growth of French employment in the food industry is considered too small to be significant.

1937.¹⁶⁹ Observations on a greater number of firms were available, but they were rejected for only covering part of the sample. Unfortunately, the sample itself is not complete - no records were found for the surveys of January-October 1935 and March-June 1936. There remain fifty-four time-series observations per firm.

To gauge the level of employment discrimination against foreign workers, the analysis is performed on the turnover of personnel of each firm.¹⁷⁰ Ignoring the months in which there was no change in employment, the labour turnovers are classified according to the schema below:

		Foreign Workers		
Employment:		Increase	No Change	Decrease
French Workers	Increase	Neutral	Positive Discriminatory	Positive Displace and Replace
	No Change	Negative Discriminatory	x	Positive Discriminatory
	Decrease	Negative Displace and Replace	Negative Discriminatory	Neutral

If the Prefectoral guidelines for limiting domestic unemployment by laying-off the foreign workers first were to be followed, a discriminatory labour turnover strategy would have had to have been prevalent within industry. If the higher aims of the 10

¹⁶⁹ There were only nine designated industries in the surveys, but with the importance of the automobile industry in the Seine *département*, it is treated separately from the engineering industry within which it was originally presented. This is an important distinction to make as the five automobile firms represented nearly one-half of the total number of workers in this sample.

¹⁷⁰ For the analysis of this data source, labour turnover is measured by the difference between the level of employment in any given month and the level of employment in the previous month. It is therefore not a true measure of labour turnover as it is based on the stocks of employment, when turnover is a flow. Consequently, the term 'labour turnover' is applied in its most general sense, given these inconsistencies.

August 1932 law were to be realised instead, a 'displace and replace' labour turnover strategy would have had to have been the custom. Both strategies are labelled 'positive' as they are in line with the directives of government policy. Where the recorded turnover of labour is contrary to that sought by the government, it is labelled as 'negative' to the government's policy.

The relative usage of each of the labour strategies by the industries concerned is presented in Table 3.2 for the period 1932-1937. The figures reject out of hand any suggestion that (Parisian) industry heeded the advice of the government and replaced at least part of its foreign workforce with French workers. Even if the industry average figure of 11% of employment changes being of the requested 'displace and replace' nature is considered supportive, the fact that 7% of employment changes reversed this practise is proof that there was no organised drive to replace foreign workers with the unemployed French.

There is very little industry variation in turnover strategies either. However there is some consistency with the results of Table 3.1 for the whole economy. The industries that display the largest *net* discrimination in labour turnover (columns 1 and 2 minus columns 4 and 5) - foods, furniture (included under the construction industry grouping), engineering in general and chemicals - displayed the largest discrimination rates in employment. The representativeness of the Parisian sample is supported by this parallel result, as is the similar finding that industry discrimination in employment turnover did correspond with high industry unemployment differentials (see Table 2.12). In fact, for the clothing, leather goods and glass and ceramics industries, the *net* discrimination of labour turnovers is actually negative.

Table 3.2 Discrimination and Employment Turnover in Parisian Industry, 1932-1937

	Positive Displace and Replace	Positive Discriminatory	Neutral	Negative Discriminatory	Negative Displace and Replace
Foods	16	23	32	24	6
Furniture	10	30	33	23	4
Construction	9	20	49	17	6
Leather Goods	7	30	23	34	6
Clothing	8	29	21	34	7
Paper, Printing	6	32	29	30	3
Automobiles	12	20	44	14	9
Mech. Engineering	9	34	30	21	6
Chemicals	18	25	22	24	10
Glass, Ceramics	15	18	28	23	16
All Industries	11	26	31	24	7

Note: The figures in the table above are percentages.

Sources: A.N. F⁷ 13550, 13557, 13562; A.N. F²² 671-675.

The results relate to labour turnover for the whole of the period 1932-1937 so it may be countered that the discriminatory lay-offs of foreigners would have been strongest at the start of the economic crisis in 1931. The reports of the other Prefects to the Ministry of the Interior support this. "The foreign workers, having come to the end of their contract, have returned home by their own means" was a common phrase in the reports of 1931.¹⁷¹ Other workers were more forcibly repatriated at the end of their contracts.¹⁷² But if the bulk of the foreign labour force susceptible to being 'displaced and replaced' had been displaced in 1931, the law of 21 June 1932 came at least a year too late, if it was needed at all. If the foreign labour force was approaching a state of 'incompressible mass' by the time the law had been passed, the results it

¹⁷¹ See for example the reports of the Prefects for the Meurthe-et-Moselle and Rhône départements in 1931 (A.N. F⁷ 13538, 13541).

¹⁷² See the Ministry of the Interior document *La Crise Économique et le Chômage* (5 February 1931) that surveys the initial results from the Prefects' reports or the later reports of the Prefects for the Meuse (3 December 1931) and Oise (30 October 1931) départements (A.N. F⁷ 13529, 13539, 13540).

would have achieved may have been at the expense of the industries themselves.¹⁷³

To gauge whether the state of incompressible mass had been attained by 1932, the quarterly movement of labour turnovers, for all industries, is presented in Figure 3.2.¹⁷⁴ The labour turnovers deemed 'negative' and 'neutral' to the government's foreign worker policy are not displayed, only the 'positive' labour turnovers and the sum of their parts, the total of discriminatory labour turnovers.

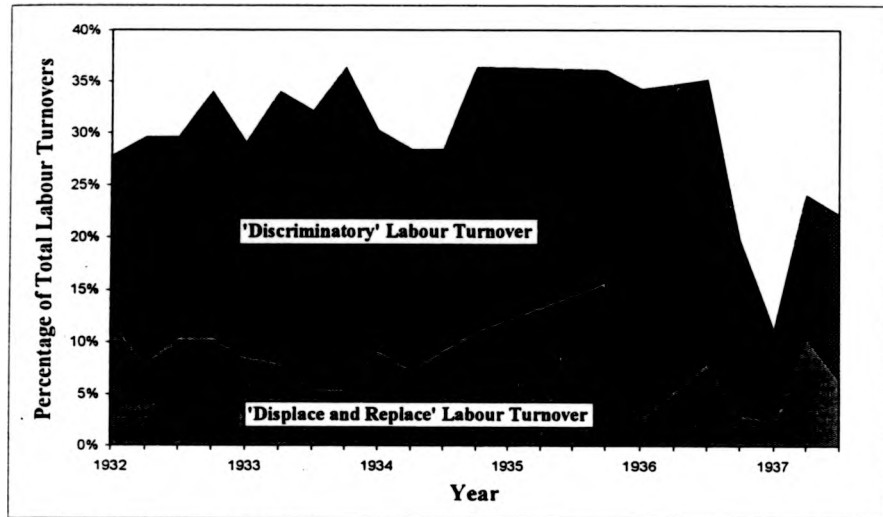
The practise of 'displacing and replacing' foreign workers with French workers appears to have been in decline in 1932-1933, then rose steadily until late 1935 before falling to very low levels for the rest of the period. This would correspond well with the parliamentary moves towards the extension of the quota system from November 1934 onwards and a certain eagerness of the Prefect to pre-empt them. However, the maximum of 16 per cent of all labour turnovers being of a 'displace and replace' nature is not particularly large, especially given the co-existence of negative 'displace and replace' labour turnovers (see Table 3.2).

The practise of laying-off foreign workers without replacement seems to be continuing until 1933, so maybe the 'incompressible mass' had not already been achieved. It would appear that the respective practices of the two types of discriminatory labour turnover were moving in opposite directions in the pre-Popular Front era. The proportion of employment changes that were of a discriminatory nature

¹⁷³ With respect to mining in Decazeville, Reid (1985) reports the difficulties management faced in laying-off large numbers of foreign workers, "further layoffs of immigrant workers would have forced the dismissal of Frenchmen employed aboveground" (p. 163).

¹⁷⁴ The use of quarterly, rather than monthly, observations reduces the problem of outliers and makes the trend movements in discriminatory labour turnovers easier to identify.

Figure 3.2 Discrimination in Labour Turnover in Parisian Industry, 1932-1937



Note: For ease of interpretation, rather than splicing the graph, a simple linear trend is fitted for the missing observations of January-October 1935 and March-June 1936.

Sources: A.N. F⁷ 13550, 13557, 13562; A.N. F²² 671-675.

was thus reasonably constant (at about one-third of total employment changes) until 1936. This reasonably low percentage of positive discriminatory labour turnovers in total support the evidence from Table 3.2 that the *net* employment discrimination in practise in Parisian industry was rather small, and further, that it disappeared along with the conservative government in May 1936.

The evidence from the Parisian industry of the 1930s therefore rejects the notion that government legislation had much effect in private industry. It may have been successful in stopping the foreigner from entering France, but it was not successful in overriding the wishes of employers to retain their foreign workers. We shall return to this issue later, but it remains to see if the government was successful in repatriating the most economically vulnerable section of society, the unemployed foreigner.

3.2.3.2 A 1930s Export Drive: the Unemployed

If there had only been limited dismissal of foreign workers for the purposes of replacing them with French workers, it is important to assess the degree to which those foreign workers laid-off during the normal course of the Depression were removed from French territory and thus from the unemployment register.

It has already been noted that the recorded level of repatriations was twice as high in 1931 and 1932 as in normal years, and that a smaller but significant jump in the number of repatriations took place in 1935. The 1930s were therefore not a period of sustained repatriations. Again, the question of an incompressible mass is important and is something to be discussed more fully later.

Given the dates of the repatriation drives in the 1930s, the population censuses appear ideally suited to another 'before-and-after' analysis. In March 1931, the number of foreigners in employment was 1,230,160. In March 1936, that figure had fallen to 813,044, a reduction of one-third of the original workforce. Of this fall in employment of 417,116 foreigners, there were only 39,742 more *sans emploi* in 1936 than in 1931. More than 90% of the fall in foreign employment therefore remains to be explained.

If we look at the monthly government statistics for the net outflow of controlled foreign labour between these two dates, we find that 261,616 of these displaced workers were repatriated, thus leaving a shortfall of 115,758 workers. Part of this residual can be explained by the increase in naturalised foreigners: the employment of naturalised foreigners increased by 40,786 between 1931 and 1936. The remaining

74,972 former workers, assuming that entries and exits from employment due to demographic factors cancelled each other out, were thus foreigners who returned to their original country by their own means.

Therefore, of the foreign workers who had lost their job by March 1936, over 60% were repatriated and one-sixth returned to their home country by their own means to try to find employment there. Of those foreigners who were working in March 1931, but not in March 1936, only one in five remained in France and the majority of those did so because they gained French citizenship.

Would it be correct to view the figure of 261,616 repatriated foreign as an indicator of the effectiveness of the government's attempts to export the unemployed? It is not so simple, of those that had been made unemployed a significant proportion of them would have left the labour market anyway - the discouraged worker effect. In this case, the labour market they would have left would have been the French labour market. Instead of returning to their homeland by their own means, they may have taken up the offer a free train ticket, particularly as the convoys began in the 1930s to travel to country of origin rather than just the French border.

If the rise in unemployment accounted for only 9.5% of the fall in employment for foreign workers, the figure was far from one hundred per cent for French workers: 35.3%. Hence, almost two-thirds of the French workers who were no longer in employment in March 1936 had left the labour market. This is a fact that Scot (1988) has highlighted, in particular the significant withdrawal of women from the labour market.

If we were to hypothesise that a similar percentage of the foreign labour force would have left the (French) labour market via this 'discouraged' worker effect; repatriation of the unemployed foreigners would only have reduced unemployment by 25.8% (35.3%-9.5%) of those no longer in employment. Hence, an extra 107,404 foreign workers would have been unemployed in France in March 1936 had they not been repatriated. This figure is considerably less than half the number actually repatriated and would suggest that a five-year programme of repatriation was a particularly expensive means of achieving such a result.¹⁷⁵

With regard to the proportion of foreign workers remaining in the labour market it may be expected to be higher than the 35.3% assumed given the difficulties and costs involved in migration. Alternatively, it may be expected to be lower given that most foreign workers were on one- or two-year work contracts and so there was always an expectancy to return home at some stage, plus there was the alternative labour market available for the unemployed foreigner, something that was not so readily available to the unemployed French worker. But the exact value of an arbitrary 'discouraged worker rate' is unimportant as the above calculations are not intended to give a definitive estimate of the level of unemployment in the counterfactual of no repatriation, they merely highlight the limited effect of the repatriations upon unemployment.

¹⁷⁵ Mauco (1936, pp.191-92) also highlights the inefficiencies and the expense of removing foreigners from French territory. He cites the example of the Marseilles court of summary jurisdiction which in 1931 "inflicted on aliens a total of 140 years imprisonment, the costs of which was estimated to be at about 500,000 francs. An Italian and a Bulgarian had already each cost the State 28,000 francs; one of them had been convicted 29 times for refusal to obey an expulsion order and had been condemned to a total of 10 years' imprisonment for this offence." "Deportation is a myth", he concludes, "for, apart from exceptional cases, it is never applied."

3.2.4 A Longer-Term View

The majority of this Section has dealt with the attempts to regulate and repatriate the foreign worker in the 1930s. In the sphere of migration flows there is doubting the ability of the government to strongly curtail the number of entries to France when necessary and this was done in the 1920s and the 1930s. The significance of the policies of the 1930s lies with the organised repatriation of foreign workers and the legislative attempts to affect the employment of foreigners in private industry. The 1930s have therefore commanded the greater attention.

It has been shown that a very high proportion of the unemployed immigrant workers left the French labour market and very probably France as well. The effectiveness of the continued attempts to repatriate these workers has been questioned. Officially, over a quarter of a million people were repatriated, and we have estimated that another 75,000 left the country by their own resources.¹⁷⁶ It is open to question what proportion of this quarter of a million would have left the country anyway.

However, it was not on the question of the effectiveness of repatriation that the foreign worker policy came into difficulties. Admittedly, the application of the legislative measures was rather liberal and the period of actual constriction of the foreign worker by the public authorities lasted less than two years. But the Prefects had been instructed to request firms to discriminate against foreign workers from the

¹⁷⁶ As this figure has been derived from the population census calculations in Section 3.2.3.2, it will probably be an under-estimate due to the under-recording of foreigners in the censuses. As a result of the increase in anti-foreigner legislation from 1932 onwards, there should have been less illegal foreigners in the country in 1936 than in 1931. Therefore, among the foreign population who were not recorded by the population censuses, there would have been a net out-migration from 1931 to 1936.

beginning of the economic crisis and the fact that the law of 11 August 1926 was on the statute books before the crisis began enabled the most zealous local Prefects to carry out their purges of the foreign worker. Consequently, the employment of foreigners fell by more than fifty per cent between the two censuses in a number of *départements*, albeit without any significant effect upon unemployment. But in the main, after the initial mass shedding of labour at the start of the economic crisis, employers held onto their foreign workers.

The reasons for this lie not just in the skill levels of the foreign workers but also their aptitude for heavy work. As highlighted in Chapter 2.3 and by Mauco (1936, pp.187-88), the European immigrants largely formed an indispensable and very productive section of the workforce even if they were technically unskilled workers.¹⁷⁷ The reduction of this section of the workforce would have had negative effects on the employment of other dependent workers.

This is all the more true if the foreign workers were skilled. Escudier (1992, p.202) reports that in the mines 55% of foreign workers were skilled as against only 35% of French workers. As outlined in Chapter 2.3, the construction industry was also particularly dependent upon skilled foreign workers. The importance of foreign workers to the employer is illustrated by Letellier *et al's* (1941, pp.260-65) finding that for the unemployed foreign worker, he had had a longer job tenure and a higher

¹⁷⁷ The National Economic Council also differentiated between the Europeans and the North Africans in their prescriptions for a 'partial remedy for unemployment'. The Europeans were to be encouraged to remain and work in agriculture, but there was no such accommodating attitude to the North Africans, who had brought upon themselves through their living conditions, not only grave dangers to their hygiene, but through the spread of tuberculosis, dangers to the hygiene of the local population and to their families when they returned (J.O. Doc. Admin., 26 February 1931, pp.149-58; Conseil National Économique, *Mesures Susceptibles de Parer Eventuellement à la Crise de Chômage*).

wage than the corresponding unemployed French worker.¹⁷⁸

It should not be surprising therefore, to find that employers were reluctant to replace their foreign workforce with the less-skilled French unemployed. Without the active support of the employers, the policy of repatriating foreign workers as a cure for domestic unemployment could never be anything more than only a partial success.

The long-term effect of the discriminatory laying-off of foreign workers and their return to their country of origin was to impose a supply constraint on the French economy when the recovery began, the very same supply constraint that had necessitated the influx of two million foreign workers in the 1920s.¹⁷⁹ The demographic problem had also not been overcome,¹⁸⁰ and the 1.5 million births that had been lost during the First World War had become 1.5 million workers that had been lost for the recovery of the economy in 1936/1937.

Demographically, the substitutes for the repatriated foreign workers did not exist. Economically, the skills of the unemployed French workers were no match for those of the foreign workers or for those required by industry. In short, the short run gains of the repatriation policy were limited, but the long-term effects were not.

¹⁷⁸ As Oualid (1929, p.180) and Mauco (1933, p.782) outline, the recruitment of foreign labour involved an initial period of re-training to the specific tasks of work in French industry, which may have been to those in their home country. This period was also one in which attempts were made to reduce the language barrier. Given these high initial firm-specific costs of employment, any labour economics textbook would state that the employer would seek to hold onto that labour as long as possible in order to regain those initial costs of employment.

¹⁷⁹ Wolfe (1969, p.172) also argues that the elimination of foreigners from French territory would have produced an additional brake on recovery: the shrinking of aggregate demand.

¹⁸⁰ The number of births fell from 816,000 in 1920 to 587,000 in 1938 (Tapinos, 1991, p.99). This was no doubt also a consequence of the collapse in the birth rate during the War.

3.3 The Forty-Hour Week

The years 1936-1938 mark a tumultuous period in French political and social history. The semi-revolutionary situation that existed in June 1936 was to strongly shape the legislative programme of the government and bring the battles over government policy out of the Chambers of Parliament and into the workplaces. Whereas most of the immigrants accepted silently their repatriation,¹⁸¹ the forty-hour week became a shibboleth of loyalty to the Popular Front and a focus of attack for the opposition.¹⁸²

Any appraisal of the Popular Front's economic policies must therefore consider the battle over the implementation of the policies as much as the economic content of the policies themselves. The previous Section has highlighted how the unwillingness of the employers to dispense with large sections of their European workers limited the implementation of the government's foreign worker legislation. Nevertheless, the organised resistance to the implementation of the 40-hour week dwarfed these defensive measures. It is time to set the scene for the Battle for Hours.

3.3.1 Historical Background

The law of 21 June 1936 was not the only piece of legislation in the interwar period that reduced the length of the working week. The law of 23 April 1919 had introduced the eight-hour day to French industry. In similar fashion to the experience seventeen years later, employers strove to limit its implementation despite the productivity

¹⁸¹ Cross (1983, p.201).

¹⁸² Rossiter (1987, p.683).

promises of the trade unions. The bitterness of the first Battle for Hours therefore provides a useful benchmark against which to assess the events of 1936.

It would have been unusual for the length of the working week to have been reduced twice in such a short period of time, but part of the impetus for a second reduction in the legal working week came from the fact that the actual working week practised in industry was reasonably close to forty hours anyway. If this was the case then the employment-creating potential of the forty-hour week would have been rather small - it would have eliminated short-time working rather than unemployment. The importance and the extent of short-time working in the pre-Popular Front era needs to be identified, though it is the battle over the 48 hours that is considered first.

3.3.1.1 The Adoption of the Eight-Hour Day

Since the extremes of the 13- and 14-hour in French industry during the first half of the nineteenth century, the reduction of hours of work had been a central demand of the trade unions.¹⁸³ They had indeed been successful in having the eight-hour day practised in certain sections of the economy before the War, but the demands for the eight-hour intensified afterwards as the employers called for longer hours to meet the needs of reconstruction.

The largest trade union confederation, the C.G.T., made the demand for the eight-hour day the centrepiece of its May Day demonstration. As De la Taille (1939, p.106)

¹⁸³ Sauvy (1965, p.344).

outlines, "the demonstration was expected to be enormous and the union leaders let it be known that they wouldn't be able to control their troops if their demand was not met." The demand was met. The law of 23 April 1919 was rushed through parliament in an attempt to head off the unrest. But the industrial tension was not defused and was only heightened by the ferocity with which the police broke the demonstration.¹⁸⁴ One worker was killed and hundreds injured, including the leader of the C.G.T., Léon Jouhaux, who was beaten by the police.

The law decreed that the length of the working day could not exceed eight hours and that there would be no loss in pay as a result of any hours reduction.¹⁸⁵ The effect on hourly industrial wages was dramatic, a rise of 30% in 1919 alone, but this did not transfer into an increase in real incomes: consumer prices rose by 25%.¹⁸⁶ The real value to the worker of each hour of work increased, but given a reduction in the working week from 54 to 48 hours, this represented a reduction in weekly real wages of 7%. The decree that the reduction in hours of work should be without loss of pay had been annulled in real terms.

There was a similar lack of success for the unions in maintaining the eight-hour day itself. By late 1920, only 27 per cent of eligible workers were actually covered by eight-hour agreements.¹⁸⁷ The circumvention of the law of 23 April 1919 only intensified in 1921 when retail employers re-imposed Sunday opening, the Engineering Employers Federation imposed a ten-hour day and the Prefects granted concessions to employers in the railway, shipping and textile industries. In fact, the

¹⁸⁴ Magraw (1992, p.178).

¹⁸⁵ J.O., 25 April 1919, p.4266.

¹⁸⁶ Villa (1993, series WH and PCSGF respectively, p 445,449).

eight-hour day only survived in the mines and in sections of the metal industry.

Although the law of 23 April 1919 remained on the statute books, its initial implementation, therefore, lasted at most two years for the bulk of industry. But what of its effects? It was not introduced to reduce unemployment, rather to "reward workers for wartime sacrifices,"¹⁸⁸ but as highlighted above the price increases negated any monetary gains from the 40-hour week.

There was also the reconstruction of the economy to be carried out. The introduction of the eight-hour day limited the supply of labour, but as Villa (1993, p.75) points out, the available additional supplies of labour were not particularly conducive to high productivity. The unemployment pool consisted of the least skilled, the de-mobilised soldiers and the war invalids. The Renault company, the largest employer in France, therefore decided not to maintain output levels by new hires, but by increasing the output of workers within each of the eight hours, by eliminating unnecessary workers and by heavy investment in new machinery.¹⁸⁹ The response of Renault was to substitute labour with capital.

In other industries and smaller firms, such large-scale investment was not possible and the need for additional, productive, labour supplies necessitated the organised recruitment of foreign workers. This was particularly true in the mines, where the problem was compounded by an exodus of French miners to other professions, and in the reconstruction of the devastated regions where the foreigners made up 44 per cent

¹⁸⁷ Magraw (1992, p.179).

¹⁸⁸ *Ibid.*, p.178.

¹⁸⁹ Fridenson (1972, p.168).

of the total workforce in September 1922.¹⁹⁰

There are many similarities between the reduction of the working week in 1919 and 1936: the demonstrations of workers over the issue, the revenge of the *patronat* and the wage-price spiral that eliminated the workers' monetary gains from the shorter working week. The consequences of the eight-hour day are therefore of interest. In short, the restriction in the supply of labour that it entailed for those already in employment was overcome by increased capital investment and by the employment of additional (foreign) labour. Consequently, Gross Domestic Product grew in real terms by 11% in 1919 and 8% in 1920. It remains to be seen whether these sources of economic growth existed to the same degree in 1936.

3.3.1.2 Short-Time Working in the 1930s

The practise of short-time working in industry as a means of limiting the number of lay-offs in an economic contraction had been well established in France by the 1930s. The policy therefore only received a passing mention in the National Economic Council's recommendations for combating unemployment in 1931.¹⁹¹ Indeed, it had already been noted by the Ministry of the Interior that the practise was already widespread in February 1931 and that in the cases where the Prefect had intervened to suggest the policy to industrialists, it had been accepted with ease.¹⁹²

¹⁹⁰ Oualid (1929, p.177).

¹⁹¹ J.O. Doc. Admin., 26 February 1931, pp.149-58. Conseil National Économique, *Mesures Susceptibles de Parer Eventuellement à la Crise de Chômage*; J.O. Doc. Admin., 13 December 1931, p.1431. Conseil National Économique, *Le Nouveau Programme d'Outillage National et le Chômage*.

Table 3.3 Average Hours of Work by Industry, 1931-1936

	1931	1932	1933	1934	1935	1936
Mining, Quarrying	44.2	39.9	40.4	41.8	41.8	43.9
Foods	47.2	46.2	46.4	46.3	46.2	46.6
Chemicals	46.8	46.1	46.4	46.4	46.3	46.8
Rubber, Paper	46.2	44.1	46.1	45.4	45.7	46.6
Textiles	44.1	41.2	45.1	42.8	41.6	44.1
Clothing	46.5	45.5	46.7	45.8	46.2	46.8
Leather Goods	45.4	43.4	45.3	44.6	45.4	46.2
Glass, Ceramics	46.0	42.9	44.2	44.1	44.0	45.2
Metallurgy, Metal Work	46.1	43.1	44.7	44.6	44.7	46.0
Construction	47.2	46.5	46.9	46.7	46.8	47.0
Finance	47.8	47.9	48.0	48.0	47.9	47.9
TOTAL	45.8	43.6	45.0	44.7	44.5	45.8

Source: Sauvy (1967, p.547)

Note: The figures for the metal industry are weighted averages of the metallurgy and metal work figures presented by Sauvy; the figures for the construction industry are weighted averages of the wood and construction figures presented by Sauvy. In both cases, the weights used are the employment shares derived from the population census of 1936.

The prevalence of short-time working can be seen from Table 3.3. While all industries practised short-time working to some degree, there is considerable variation between the industry, just as there was considerable variation between the industries in their incidence of unemployment. It would appear that the short-time working did reduce unemployment, at least by this cross-industry comparison. The industries that practised the greatest amount of short-time working, the mining and textile industries, were those that did not suffer particularly high unemployment (see Table 2.3). On the other hand, the high unemployment industries of leather goods and metal work employed hours of work generally above the all-industry average.

It is also noticeable that the policy of reducing hours of work was most prevalent at the start of the unemployment crisis. Thus for all industries in Table 3.3, the lowest

¹⁹² A.N. F¹ 13529, Ministry of the Interior note, *Enquêtes Concernant le Chômage*, 19 February 1931.

number of hours worked was in 1932. This would confirm the view that employers saw short-time working as only a temporary expedient to the rise of unemployment, delaying the tactic of lay-offs until the persistence of the economic crisis was fully known.

With regard to the scale of short-time working in the 1930s, it is clear that the 'under-employment rate' - the proportion of the standard working week that the worker does not work - was slightly larger than the unemployment rate at the start of the period: 4.6 per cent as against 3.6 per cent (*sans emploi*) in 1931. However, there is a greater contrast between the numbers of workers experiencing under-employment and those experiencing unemployment. In February 1932, 56.3 per cent of workers were working short-time hours,¹⁹³ while in the same month unemployment (*demandes d'emploi*) affected only 3.3 per cent of the labour force.

These figures have led some authors to attribute the low rate of French unemployment in the 1930s to the existence of short-time working.¹⁹⁴ But this ignores the international usage of hours of work as a buffer to unemployment. In the United States the 'under-employment rate' stood at 28 per cent in 1934, three times the peak achieved in France, and in Italy, it reached 14 per cent in 1936.¹⁹⁵

While the reduction of hours of work may not have been unique to France, its importance *relative to unemployment* may have been larger in France. Bavarez (1991, pp.106-07) shows that conversion of the extent of short-time working into full-time

¹⁹³ *Bulletin du Marché du Travail*, Juillet-Août-Septembre 1936, p.284.

¹⁹⁴ See Marseille (1980, 1984) and Bavarez (1991) for example.

¹⁹⁵ The figures are calculated from those presented in Eichengreen and Hatton (1988, Table 1.4, p.18).

equivalent unemployment yields a figure of 213,958 'unemployed' persons in March 1936. This represents one-quarter of the recorded *sans emploi* in the population census of that month which, Bavarez argues, would have brought the unemployment rate up to 10%.

The importance of short-time working as a buffer to full-time unemployment was clear to the French authorities, as it was clear to those of other countries. Indeed, Léon Blum touted its existence and the number of workers suffering from it as reasons for the introduction of the 40-hour week. The greater the extent of short-time working the less significant the constraint on industry. But the most important statistics from this Section do not relate to the numbers of workers working less than 48 hours per week, they relate to the very different incidence of short-time across industries. If the 40-hour week was to be a remedy for unemployment, the legislators needed to take account of the large variation in unemployment and 'under-employment' across industries when formulating how to implement the law.

3.3.2 Work for the Unemployed or Leisure for the Workers?

The introduction of the 40-hour week in 1936 was hardly a bolt from the blue. Since the start of the 1930s, the International Labour Office (I.L.O.) had been campaigning for cross-country adoption of the measure as a means of combating unemployment and the 40-hour week had been a central part of the newly-formed Popular Front's platform since 1934. Both parties had developed programmes of how the measure should be introduced into industry were it to be applied. When it was applied to French industry though, under the law of 21 June 1936, it was in a form very different

to that envisaged by the earlier proponents. Before detailing the law itself, it is therefore useful to consider the earlier recommendations on its application that it ignored.

3.3.2.1 The I.L.O. Proposals

The idea of the 40-hour week as a means of reducing unemployment was first considered by the I.L.O. in January 1931. Although no agreement could be made on the issue among the delegates, the issue was to be studied further and placed on the agenda for the Conference of 1933. No agreement was reached at this Conference due to the hostility of the employers and governments to the idea who succeeded in having the proposal defeated by four votes. There were, however, significant exceptions to this blanket rejection: the Italian government and employers supported the unions on the issue, as did the French government on the proviso that the 40-hour week was applied internationally.

The 1934 Conference also resulted in stalemate: the vote for the 40-hour week had been passed, but rendered ineffective due to the refusal of the employer delegates to participate. The Italian delegates proposed a compromise: the 40-hour week would be introduced into a number of important industries on a trial basis. The 1935 Conference therefore concerned itself primarily with the introduction of the 40-hour week into the public sector, the iron and steel, construction, and bottle-making industries as well as the in the coalmines. Again, the Italian delegates were the most fervent proponents of the 40-hour week, with the representative of the Italian government claiming that its implementation in Italian industry had permitted the

recruitment of 100,000 workers.¹⁹⁶ The 'selected industries' compromise worked and the Conference voted to accept the 40-hour week in principle, leaving the specifics of implementing it to be discussed thereafter. However, agreement could only be reached for the bottle-making industry.

The I.L.O. was buoyed by the commitment to the principle of the 40-hour week and turned its efforts towards overcoming the disagreements over its implementation in the selected industries. In October 1935, questionnaires were sent out to the relevant governments to identify the stumbling blocks. The governments then passes on the questionnaires to all parties affected by the proposal. As the next Conference took place after the Popular Front had been elected,¹⁹⁷ the questionnaire replies of the French organisations provide us with an interesting view of their sentiments on the principle of the 40-hour week just before it arrived on the statute books.¹⁹⁸

The questionnaires concerned the I.L.O.'s proposals for the implementation of a 40-hour week in 'selected' industries and the regulations regarding the availability of supplementary hours. While the trade unions concerned predictably supported the 40-hour week, it is noticeable that the heads of the government's Labour Inspection Service unanimously supported its introduction in the construction and iron and steel industries, while only its Bordeaux division opposed its introduction in the public sector.¹⁹⁹ There was also general agreement among the unions and the Labour

¹⁹⁶ De la Taille (1939, p.202).

¹⁹⁷ At this Conference, the important industries were extended to cover the textile and chemical industries.

¹⁹⁸ These replies are maintained at the Centre des Archives Contemporaines in Fontainebleau, classmark 760121/432 (TR11102). The following discussion uses this source as reference.

¹⁹⁹ Of the twelve Labour Inspector divisions surveyed, only that of the Strasbourg division did not appear to reply to the questionnaire.

Inspectors that the provision of supplementary hours was desirable to meet exceptional work orders and to compensate for an inability to recruit extra workers where applicable. The I.L.O. proposal supplementary hours with a ceiling of 100 hours per worker per year was generally accepted by the Labour Inspectors, with only the head of the Tours division arguing against their introduction. In order to be an effective measure against unemployment, he argued, they must be suppressed until the economic crisis was finished.

This support for the proposals from the unions and Labour Inspectors was not echoed by the Mine Inspectors and the employers' organisation, the Confédération Générale de la Production Française (C.G.P.F.). Both argued that the increase in hourly wages that the unions would seek to attain would result in a rise in prices and thus a loss of competitiveness. In this case, there would be no reduction in unemployment, but instability for those in employment. It must be stated that the I.L.O. proposal for a 40-hour week did not contain the phrase "without loss of pay", but the French Socialist Party had already made it clear that would seek to introduce the measure without loss of pay.

The I.L.O. proposals for a forty-hour week in important industries and for the provision of up to 100 supplementary hours per year were predictably rejected by the employers and the government's Mine Inspection Service. On the other hand, it is rather interesting to note that, after five years of observing the practice of short-time working in industry, the Labour Inspectors came out strongly in favour of the I.L.O. proposals for the 40-hour week.

3.3.2.2 *The Programme of the Popular Front, pre-1936*

The prominence that the I.L.O. gave to the 40-hour week generated an international debate and with it came international evidence of its application. The experience of the 40-hour week in Italy has been mentioned above, but the Socialist Party was drawn in particular to the example of the United States,²⁰⁰ where the average hours of work had fallen from 48.3 hours in 1929 to 34.7 hours in 1934,²⁰¹ and the establishment of a 40-hour or less standard working week was becoming increasingly prevalent across different industries.²⁰²

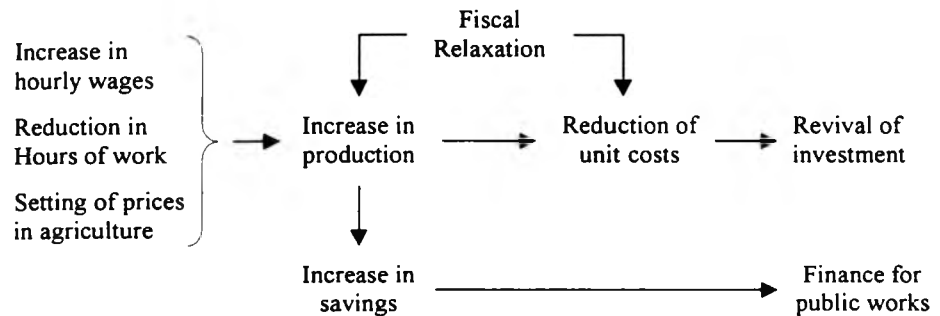
The adoption of a 40-hour week without loss of pay was incorporated into the Socialist Party's 'Programme of Action' of 24 May 1934. The 40-hour week, a large-scale public works programme and the setting of agricultural prices would address the crisis of under-consumptionism. The schema of this reflationist programme is outlined in Figure 3.3.

The increased costs placed on employers from the shorter working week, it was argued, would be negated by the increase in output facilitated by the increase in aggregate demand, to which the shorter working week had contributed. In essence, the reduction of the working week without loss of pay was expected to be partly self-financing, but this assumes that the source of the economic crisis in France was demand-deficiency. Nevertheless, whatever the causes, the structural problems of unemployment that we have identified so far would have severely limited the

²⁰⁰ See the articles of Jean Lebas in *Le Populaire*, 8 January and 11 June 1934.

²⁰¹ Eichengreen and Hatton (1988, Table 1.4, p. 18).

Figure 3.3 The Socialist Party Logic of Reflation, 1934



Source: Margairaz (1983, p.358)

effectiveness of any solely demand-side remedy for unemployment.

But this was not to be the programme with which the Popular Front fought the May 1936 general election. The joint Socialist-Communist pact was signed on 27 July 1934 with the Socialist programme largely remaining intact. However, with the incorporation of the Radicals into the pact in 1935, many of the Socialist Party proposals were diluted as the Parties formulated a joint programme based on the lowest common denominator. The victors, being the least Left wing, were the Radicals. The programme, as Bernstein (1982, p.381) notes, was almost entirely that of the Radical Party. The goal of a "40-hour week" had been replaced by a bland "reduction in the working week" for which no figure was given.²⁰³ Indeed, it is rather surprising that the commitment to a reduction in the working week *without loss of pay* remained in the joint programme.

²⁰² Cited in the article by Georges Dumoulin, *Le Populaire*, 12 February 1936.

²⁰³ Margairaz (1983, p.352).

While Premier in 1932, the Radical Edouard Herriot had refused to accept the I.L.O. proposals for a 40-hour week *with* loss of pay. At the Radical Congress in October 1935, the Party declared only that there should be a "division of the available work" and no mention of wages.²⁰⁴ With the Socialist Party remaining true to the platform of lowest common denominator, they did not promote the figure of a 40-hour week during 1936 and began to advocate a "flexible introduction" of the reduction in working hours. Jules Moch called for the 40-hour week to be introduced in accordance with the particular needs of each industry, rather than *en bloc*.²⁰⁵ It was beginning to appear that, if elected, the reduction in the length of the working week was not going to happen at all. But that changed in May-June 1936.

3.3.2.3 *The Law of 21 June 1936*

Within a week of the Popular Front being elected, strikes were initiated in support of collective agreements with employers. The strikes spread rapidly encompassing most of the factories in the suburbs of Paris, but their character changed in the process. Factories were occupied and the demands were expanded to include elements of the Popular Front programme, shorter hours, wage increases and paid holidays.²⁰⁶ By June 1936, 1.8 million workers were on strike and over 8,000 factories occupied. Some observers thought the mood was openly revolutionary: François Lehideux believed on 10 June that the occupiers of the Renault factory were preparing to use the tanks stored there.²⁰⁷ Two weeks later, Neufzize reported to the Paris Chamber of

²⁰⁴ *Le Populaire*, 28 October 1935.

²⁰⁵ Margairaz (1991, pp.204,221).

²⁰⁶ Danos and Gibelin (1952, pp.48-49).

²⁰⁷ Badie (1972, p.99).

Commerce that "we were convinced, and the government was certainly convinced, that this [capitulation] was the only means of avoiding revolution."²⁰⁸

The capitulation was the Matignon Agreement. The employers accepted the principle of collective bargaining, union recognition and the institution of workers' delegates in factories with more than ten employees. They also accepted to raise wages by between seven per cent for the highest paid workers and fifteen per cent for the lowest paid workers, with the total wage bill in any factory not increasing by more than twelve per cent. The employers agreed to the Matignon Agreement simply out of fear of the consequences of not doing so: "This surrender of part of the employer's authority might seem enormous today; it may be worse tomorrow if we do nothing."²⁰⁹

On the government side, Léon Blum announced to the nation that the government would act immediately to initiate legislation on the 40-hour week, collective bargaining and paid holidays. This was carried out. In a ten-week period, beginning 6 June, the French parliament enacted 65 new laws, of which the most contentious was the law for the 40-hour week.

In line with the Socialist Party's 1934 programme, the text of the law of 21 June 1936 proclaimed the adoption of the principle of the 40-hour week for all firms, whatever their business (article 6) and decreed that no reduction in wages could be introduced as a result of the law (article 11).²¹⁰ Importantly, it was introduced as a *loi-cadre*, by which Parliament voted on the law in principle only, with the application of the law to

²⁰⁸ Cited in Vinen (1991, p.30).

²⁰⁹ Note sent to Lambert Ribot, the secretary of the *Comité des Forges*, the steel manufacturers' federation, dated 3 June 1936, cited in Vinen (1936, p.37).

be realised in the future by a series of government decrees (article 7). This procedure could involve lengthy delays as it incorporated consultations with professional organisations and the National Economic Council.²¹¹

The conclusion of the Matignon Agreement had not brought an end to the strikes, in fact they only intensified throughout June, despite the appeal of Maurice Thorez, the General Secretary of the Communist Party, for the workers to return to work on 11 June. Vandenplas (1967, p.166) explains the continuing level of strikes with reference to the demands of many workers for higher wage increases than those accorded by the Matignon Agreement; several employers had already agreed to higher wage increases before the C.G.P.F. intervened to act for all employers at Matignon. In fact, as Vinen (1991, p.29) observes, the atmosphere only began to calm after 14 July as workers departed on their first paid holiday.

The semi-revolutionary situation slowly ebbed away and the consultations began over the implementation of the 40-hour week. However, Blum had miscalculated. The C.G.T. had benefited greatly from the experiences of June, both in terms of membership and in terms of political strength. It had had very limited control over the workers movement in June, but by the autumn it had a very sizeable following who could inflict enormous economic, and political, damage to Blum's government.

²¹⁰ J.O., 26 June 1936, p.6699.

²¹¹ This was indeed the case; the first decree became operational only on 1 November 1936. Rossiter (1987) has argued that the use of the *loi-cadre* was a deliberate attempt by Blum to appease the employers and out-manoeuvre the trade unions: the period of consultation would enable the employers to gain exemptions from the 40-hour week once the militancy of the workers had died down. This was consistent with the movement in Socialist Party thinking in early 1936 towards a more flexible introduction of a 40-hour week, if at all.

Blum still delayed the implementation of the law of 21 June 1936. As mentioned earlier, the first decree became operational only on 1 November 1936, textiles were not touched until 1937 and it was only a full year after the original vote that the 40-hour week had become general throughout industry.²¹² However, the decrees that were eventually submitted to the National Economic Council were in the form dictated by Jouhaux and despite the arguments presented to the Council by the employers, each was rejected by the government.

The 40-hour week that was actually implemented was far removed from that originally advocated by the I.L.O. in 1935. The decrees created a 40-hour work whose application was far more rigid than any previously proposed and as a result provoked an employer counter-offensive in excess of the one that rendered the eight-hour day law of 1919 ineffective. The rigidity of the law in force can be gauged from Table 3.4, which uses the proposals for the 40-hour week in the textile industry as an example.

The I.L.O. proposal and the programme of the Socialist Party in 1934 had advocated the use of the 40-hour week as a means of reducing unemployment. The former did not advocate full compensation of wages, while the latter was to be part of an overall strategy to increase aggregate demand and thereby reduce unemployment. Although the figure of 40 hours was never adopted by the Popular Front, the maintenance of full wage compensation was maintained. There was, however, in early 1936, evidence of a shift in emphasis away from an introduction of the policy *en bloc* to a more flexible approach.

²¹² Rossiter (1987, p.678).

Table 3.4 The Rigidities of the French 40-Hour Week vis-à-vis the I.L.O. Agreement on 40 Hours (Textiles)

International Agreement Concerning the Reduction of Hours of Work in the Textile Industry	Decree of 17 November 1936 Effecting the Application of the Law of 21 June 1936 on the 40-Hour Week in the Textile Industry
<p>The duration of work for <u>individuals</u> is limited to an <u>average</u> of 40 hours per week</p> <p>The Convention gives the employer complete freedom as to the choice of division of the hours of work</p> <p>The Convention does not forbid shiftwork and working in rotation</p> <p>The limits on the number of authorised hours can be exceeded to take account of an unforeseen absence of one or more members of a team</p> <p>The Convention anticipates the possibility of awarding a quota of supplementary hours for specified types of workers in the exceptional case where the supplementary hours are necessary to undertake one or more tasks in order to permit workers employed in the same firm but at different tasks to be employed within the authorised limits</p> <p>The supplementary hours are allocated to <u>individuals</u></p>	<p>The duration of work is limited to 40 hours (<u>maximum</u>) per week and per firm</p> <p>The decree states that the firms or units of firms must, by the law of 21 June 1936, choose between the three types of division available</p> <p>Shiftwork and working in rotation are forbidden in principle, except in the rare cases where these working practises are able to be authorised by government order</p> <p>This dispensation is not contained in the decree</p> <p>This dispensation is not contained in the decree</p> <p>The supplementary hours are allocated to <u>firms</u></p>

Source: CAC, 760121/380, *Durée du Travail dans l'Industrie Textile - Comparaison entre la Convention International et la Réglementation en Vigueur en France*, unsigned and undated note.

While such flexibility of implementation may have still been Blum's objective, it was the workers' movement of May-June 1936 that dictated how the 40-hour week was to be implemented. The rigidities of application, particularly with respect to overtime and shiftwork, serve to illustrate that the law in force was for the benefit of workers already in employment, rather than those seeking to gain employment from a division of work. It was on the 40-hour week that Blum and the Popular Front were later to be judged, but it was the policy over which they had the least influence.

3.3.3 A Remedy for Unemployment?

Despite the fact that the 40-hour week was introduced not as a means of reducing unemployment, but as a 'prize' exacted by the employed, the division of work should have had a marked effect on the labour market. Whether it was still a partial remedy for unemployment in the form in which it was applied or not, is something that will be examined in this Section.

3.3.3.1 The Growth of Employment, 1937

The main sources of statistical information on employment in the 1930s were the monthly surveys of the Labour Inspectors of a sample of firms employing more than one hundred workers. These reports therefore provide direct evidence on the level of employment during the period of the 40-hour week. The annual growth in industry employment is presented in Table 3.5 for the first six months that the Inspectors presented the results for firms operating a 40-hour week separate from those still using 48 hours per week.

The results appear to be supportive of the 40-hour week. Employment rose rapidly and increasingly throughout this six-month period as the shorter working week became almost universal. The largest increases in employment are attributable to those industries having had the 40-hour week introduced the earliest - the metal and mining industries - and employment is seen to have grown much slower in the industries that had a delayed introduction of shorter hours - food production and commerce.

Table 3.5 The Introduction of the 40-Hour Week and the Growth of Employment

	Dec. '36	Jan. '37	Feb. '37	Mar. '37	Apr. '37	May '37
Mining, quarrying	3.9 96%	6.3 97%	5.9 97%	7.0 97%	8.1 92%	8.8 99%
Foods	2.0 0%	2.6 0%	2.5 0%	1.1 6%	1.7 27%	0.9 83%
Chemicals	4.1 1%	3.1 5%	5.0 27%	6.8 96%	5.0 98%	9.5 99%
Rubber, paper	3.3 0%	5.9 0%	7.4 0%	7.7 33%	8.0 95%	8.5 100%
Printing	1.3 0%	4.0 89%	2.5 100%	2.9 98%	3.2 100%	4.3 100%
Textiles	2.7 96%	3.2 99%	3.3 99%	3.2 100%	3.0 100%	2.5 100%
Clothing	0.2 0%	-1.0 1%	-0.8 2%	-2.6 73%	-5.2 100%	-3.0 100%
Leather goods	0.7 0%	0.2 0%	0.4 0%	-0.8 100%	-0.9 100%	-1.8 100%
Glass, ceramics	2.6 25%	3.9 37%	5.1 58%	5.7 79%	6.2 95%	5.3 100%
Metallurgy, metal work	5.6 100%	8.2 100%	9.8 100%	11.0 100%	13.3 100%	12.6 100%
Construction	2.4 69%	2.3 67%	2.5 67%	1.0 69%	-0.6 97%	0.8 100%
Transport, goods handling	9.5 0%	8.0 0%	6.4 27%	4.2 48%	27.7 72%	20.5 88%
Commerce, finance	0.7 0%	0.4 0%	1.5 0%	5.0 3%	1.8 89%	2.1 93%
TOTAL	3.2 61%	4.4 64%	5.0 67%	5.3 79%	6.1 94%	6.2 98%

Notes: (i) The date that each survey of employment was carried out was, in theory, the first day of each month. However, as our unemployment series has been observed at the end of each month, the employment series is regressed one month to provide compatibility with the unemployment series. Hence, the employment level from the survey of 1 January 1937 is regarded as the employment level for December 1936, as in the table above; (ii) The first row of figures for each industry represents the annual growth rate (in percentage terms) in employment for that industry, while the figure in the second row represents the proportion of workers observed to be covered by the 40-hour week.

Source: *Bulletin du Marché du Travail*, 1937-1938.

The exceptions to the rule appear to be the 'traditional' industries of textiles, clothing and leather goods. These industries, it was noted in Chapter Two, had been suffering from a long-term economic decline relative to the rest of French industry, so it is not particularly surprising to find stagnant employment growth or even employment reduction in these industries in Table 3.5.

In several industries there is a marked increase in the annual growth rate of employment as the application of the 40-hour week becomes almost universal – namely, the chemicals and transport industries – but this does not hold for all industries, other than in the ‘traditional’ industries above, the construction industry records negative annual employment growth in the month of rapid extension of the 40-hour week.²¹³

There is a problem with this simple observation of employment growth in the period in which the 40-hour week was introduced; namely, its effects cannot be isolated from the other economic influences of the day. In particular, the effects of the devaluation of the franc in September 1936 were beginning to permeate through the economy. If, as Sauvy (1967, p.305) argues, the devaluation was the key to economic recovery, then the favourable employment growth may have been a consequence of this factor and not the 40-hour week

A possible solution to this problem can be found in the fact that not all firms yielded to worker pressure and implemented the 40-hour week. Many industrialists saw the Matignon Agreement as only a temporary setback and so continued their pressure for the repeal of the 40-hour week via the Survey of Production in 1937. This divergence of actions can therefore provide us with a control group against which the growth

²¹³ The employers' federation, the C.G.P.F., had already expressed its concerns that the 40-hour week would have particularly damaging effects on employment in the construction industry due to the adverse effect it would have on productivity (inability to expand capital in line with labour), and thus profits (C.A.C., 760121/380 (TR1050), Response of the C.G.P.F. to the I.L.O. questionnaire on the 40-hour week, 28 December 1935). In 1938, the Divisional Labour Inspector for the Lyon region notes the difficulties that the industry faced with the introduction of the shorter working week and a 20 per cent increase in wages. The effect, he adds, was that several construction projects had been cancelled because of the higher prices proposed by the contractors (C.A.C., 760121/432 (TR11102), reply of the Lyon Divisional Labour Inspector to the Ministry of Labour circular of 18 May 1938 on the subject of the relaxation of the regulations concerning the limitation of hours of work).

rates of employment within the 40-hour firms can be compared.²¹⁴

This source should not be overstated as the decrees introduced the 40-hour week by industry, so the 40-hour week was applied almost universally to all firms within the designated industry. The difference between the 48-hour firms and those maintaining the 40 hours at the start of 1937 could therefore be merely the industry in which they operated, rather than any economic factors. As the product market situation differed between industries, a comparison of the employment growth rates of the two types of firms could therefore be more reflective of product market influences than of hours of work influences, exactly the problem we wished to avoid by this approach.²¹⁵ Nevertheless, it is a much better approach than just comparing employment growth before and after 1 January 1937.

The differences between the employment growth rates of 40-hour firms and non-40-hour firms *in each industry* are presented in Table 3.6. The figures for all industries are reported, despite the problems highlighted above, for comparison with Asselain (1966). A five per cent selection criteria is established for the purposes of comparison: if the proportion of workers in each industry belonging to a particular hours regime falls below 2.5%, and correspondingly above 97.5% for those covered by the other

²¹⁴ If firms in the control group were merely delaying the introduction of the 40-hour week, rather than aiming to employ a longer working week over a prolonged period, they would not form a proper control group. However, if this were the case, the number of industry figures in Table 3.6 would fall each month as firms in each industry could delay no longer the imposition of the 40-hour week. With the exception of the last month, May 1937, the number of industry figures *increases* each month, so it is not clear that above concern is warranted. It must also be remembered that the 40-hour week was at the centre of political battles against the Popular Front and the 1937 Survey of Production was an opportunity for employers to harden their stance and justify their reluctance to implement the legislation.

²¹⁵ This approach is followed by Asselain (1966) - the most cited study of the employment effects of the 40-hour week - though he does not recognise the problem of cross-industry aggregation; he compares the total employment growth of *all* firms with a 40-hour week with the total employment

Table 3.6 The Growth in Employment 'Attributable' to the 40-Hour Week, by Industry

	Dec. '36	Jan. '37	Feb. '37	Mar. '37	Apr. '37	May '37
Mining, quarrying	-5.5	2.8	3.9	3.8	3.2	-
Foods	-	-	-	-2.0	-2.4	-2.2
Chemicals	-	14.0	-1.1	1.3	-	-
Rubber, paper	-	-	-	5.3	-10.3	-
Printing	-	7.4	-	-	-	-
Textiles	3.2	-	-	-	-	-
Clothing	-	-	-	-5.2	-	-
Leather goods	-	-	-	-	-	-
Glass, ceramics	1.4	3.1	-1.9	-1.4	4.8	-
Metallurgy, metal work	-	-	-	-	-	-
Construction	1.9	3.7	0.6	-0.9	-4.4	-
Transport, goods handling	-	-	23.2	1.2	40.5	24.9
Commerce, finance	-	-	-	15.2	0.8	-6.4
TOTAL	2.3	4.1	3.9	4.4	3.8	-

Note: The figures for each industry represent the difference between the annual growth rate in employment in firms implementing the 40-hour law and the annual growth rate in firms not implementing the 40-hour law. For example, the figure of 1.9 for construction in December 1936 reveals that employment growth in firms working the 40-hour week was 1.9 percentage points higher than the employment growth rate in firms not working the 40-hour week.

Source: *Bulletin du Marché du Travail*, 1937-1938.

hours regime, the comparison of employment growths is not effected as the differences in the two sample sizes (greater than 95 per cent of total employment) is deemed too large for statistical consistency.

The figures reported in Table 3.6 can be interpreted as the annual growth rate in employment attributable to the introduction of the 40-hour week.²¹⁶ As with Table 3.5, the 40-hour week is predicted to have increased employment more often than it

growth of *all* firms who had not introduced the 40-hour week.

²¹⁶ This assumes that there is no selection bias in the choice of firms' hours of work within each industry. This would be a problem if, for example, those firms that did not adopt the 40-hour week had particularly high demands for their products and so required more labour, while those firms that did adopt the 40-hour week had a low product demand and so did not require additional labour over and above that resulting from the division of work. This would lead to a prediction that the 40-hour week slowed employment growth. This example of the distortion caused by product market differences

reduced it, though there is still significant variation across industries. Only in the food industry is the 40-hour week predicted to have definitely slowed employment growth.

This appears to be contrary to the very general trend that exists in the figures for the other industries. That is, the largest growth in employment attributable to the 40-hour week is generally at the beginning of the 40-hour week regime. This is only a very general trend based on the figures from Table 3.6, but it would suggest that some of the increase in employment because of the 40-hour week was only temporary. The other general result from Table 3.6 is that the differences in employment growth because of the shorter working week were not particularly large, given the thirteen per cent reduction in annual working hours.²¹⁷

However, according to the observations made in footnote 162, we would expect the growth in employment in all industries to be even smaller than that estimated from Table 3.5 and Table 3.6: the employment increase for the large firms of the Labour Inspectors' surveys outstripped the employment increase observed for the whole economy by a considerable degree.²¹⁸

Evidence on the difficulties faced by the small firms with the application of the law of 21 June comes from the Labour Inspectors. Although they had supported the I.L.O. version of the 40-hour week in 1935, they argued very strongly in 1938 for a greater

highlights the frailty of the figures for all industries, as reported by Asselain (1966, p.197).

²¹⁷ The reduction in weekly working hours was only nine per cent, but together with the introduction of two weeks paid holiday, the reduction in annual working hours was thirteen per cent.

²¹⁸ The average annual level of employment in the large firms in the Labour Inspectors' surveys rose by 6.1% in 1937 (Sauvy, 1967, p.544), while the average level of employment in the whole of industry and commerce (agriculture was excluded from the Labour Inspectors' surveys) was 3.8% (Villa, 1993, Series NS (minus NSU01), pp.443-44).

degree of flexibility in its application.²¹⁹ The Divisional Labour Inspector for the Tours region reported that the employees of the small firm had been recruited by the larger firms who, as several other Divisional Inspectors pointed out, were more able to pay the wages expected, given the events of June 1936.

To make up for the lost labour, the small employers in a number of regions were reported to be increasingly turning to their family members for help. It was noted in most of the divisions that the wages remained relatively low and the hours of work regularly exceeded 40 hours in the small firms. Thus, while the large firms had adapted to the legislation very quickly, and in several regions they had done so with an increase in capital investment, the smaller firms lacked the resources to attract labour or invest in new technology to respond to the 40-hour week.

Despite the difficulties faced by the smaller firms, the net effect was still an increase in employment, though at a much smaller level than envisaged by the proponents of law in June 1936. We therefore now turn to the explanations of the limited, though positive, effect of the 40-hour week on employment.

3.3.3.2 The 40-Hour Week: Constraint or Constrained?

The fact that the law to be implemented was in a form that was radically different to that proposed earlier seems to have played a role in limiting the unemployment-

²¹⁹ C.A.C., 760121/432 (TR11102), replies of the Divisional Labour Inspectors to the Ministry of Labour circular of 18 May 1938 on the subject of the relaxation of the regulations concerning the limitation of hours of work. The remainder of the references in this Section to the Labour Inspectors' views of the workings of the 40-hour work is from this source.

reducing potential of the 40-hour week. In particular, the practise of working an eight-hour day, five days a week without a rota system or shiftwork was found to be particularly limiting on production, as it necessitated the complete closure of a factory of a Saturday or a shop on a Monday. As Jeanneney (1967) pointed out, skilled workers could not be hired for Saturdays only. The Tours Divisional Labour Inspector also agreed on this point:

"The organisation of work by rotas, whatever the difficulties over its control that it may raise, is the only means of producing to capacity and absorbing unemployment."

The Labour Inspectors saw the imposition of the five-day week as the greatest threat to the maintenance of production. Hence, many of them made the observation that while employment had increased in the larger firms, output was only at its pre-40-hour week level.

However, reasons other than the absorption of unemployment were cited for a relaxation of the prohibition of rota system. Different types of firms required different hours of production, such as these identified by the Toulouse Divisional Labour Inspector:

- i) Firms which dealt directly with clients for whom they undertook urgent repairs: garages, for example;
- ii) Firms in which certain operations could not be stopped at will for technical reasons: tanneries, for example; and
- iii) Firms dealing with perishable goods: wholesale fruitiers.

Nevertheless, it must be said that for the other divisions, the Labour Inspectors were reporting that they had allowed the use of the rota system, or the least the *Semaine*

Anglaise,²²⁰ in the garages in particular. The law may have been introduced into industry in a very rigid fashion, but within the decrees of 27 October 1936, there did exist the possibility of work on a rota system or the recuperation of lost hours due to seasonal factors or dispensations for works concerning National Defence.²²¹ However, they required the authorisation of the Ministry of Labour, which itself became increasingly flexible on the operation of the 40-hour week.

The most commonly cited constraint on the economic recovery under the 40-hour week, though, was the shortage of skilled workers among the unemployed. The evidence was collected in the various stages of the Survey of Production and it was declared that the shortage of skilled workers, exacerbated by the 40-hour week, was at the heart of the failure of the economy to fully recover.²²²

The shortage of skilled workers was deemed particularly strong in the coal and iron ore mines, though it was also evident in other industries. The shortage of skilled workers was deemed to have had a particularly large effect on production and employment as the employment of one skilled worker involved the employment of several other labourers whose work supplemented and depended upon that of the skilled worker.

What of the evidence of a skilled worker shortage? We have already discussed in Chapter Two the Pouillet Report on the Parisian unemployed: of 2,000 unemployed metal workers, only one in four was under the age of fifty and considered capable of

²²⁰ By the 'English Week', workers worked on a Saturday morning and/or a Monday morning with the afternoon(s) free.

²²¹ J.O., 27 October 1936, p.11229.

proper work.²²³ Indeed, the ageing of the unemployed stock towards the end of the 1930s is something that was identified in Chapter 2.1. However, returning to the issue of the professional aptitude of the unemployed, Asselain (1966, p.202) cites the opinion of Ziégel, one of the promoters of professional re-education: "no more than 10,000 of the 400,000 unemployed are able to be re-educated." Letellier *et al* (1938, p.311) also cite the perceived inadequacies of the unemployed with reference to the observation of Pluyette of the Metal and Mineworkers union, that of the 618 unemployed at the professional re-education centre, only 19% could be re-trained. Bavarez (1991, p.111) also points to the effects of the closing down of the firm-based apprenticeship centres.

However, as Maurette (1937, pp.22-23) points out, the shortage of skilled labour was not confined to France; its existence had been noted in many countries. The two main reasons for this phenomenon that he cites are the rapid development of technical progress and the neglect of apprenticeship, which had its roots in the war and was a result of the depression. The shortage of skilled labour was international and a product of the previous years of crisis, but the workers' representatives involved in the Survey of Production expressed grave doubts over the employer claims of a skilled labour shortage. It was not without justification. Note the passage from Vinen (1991):

"The manufacturers of rolling stock recognised that their previous appeals for more work would make any request for exemption from the forty-hour week law unconvincing...They hit on the formula of claiming that they had a shortage of specialist workers: 'It was therefore necessary to link this question of the forty-hour week with that of hiring for railway workshops of specialist workers from private industry.' The shortage of specialist workers seemed to have become a

²²² J.O., 16 December 1937, pp.13738-44.

²²³ Pouillet (1939, p.18).

standard theme of business complaints. Indeed it is clear that much of the academic debate about the economic effect of the forty-hour week is founded upon the deliberately manipulated information provided by business...He admitted that these arguments were hardly firm, 'but one has to defend one's interests all the same.'" (pp.76-77).

Margairaz (1991) presents similar evidence:

"Francis Hekking confirmed that the reduction in production - 142,000 metric tons in 1936, against 154,000 in 1935 and 200,000 in 1929 - did not come from difficulty in finding workers, rather 'the problem is essentially one of capital equipment.'" (p.408).

It would be wrong to conclude from this that there was no shortage of skilled workers. However, it should be clear that the employers sought to exaggerate the issue as a means of overthrowing the shackles of the 40-hour week. The idea that the skilled labour shortage was constraining was accepted by the Committee for the Survey of Production and it has remained as a 'stylised fact' ever since.

Margairaz's quote, however, also raises the possibility of a different supply-side constraint: the collapse of investment in the 1930s rendering the French capital stock rather out-dated.²²⁴ This was particularly marked in the metallurgical industry in which investment fell continuously from 1932 to 1938, despite an increase in production and profits in the Popular Front years, 1936-1938.²²⁵

Frankenstein (1980, pp.753-55) also identifies a crisis of investment in the Defence industries: the machines in the Schneider factories were very often thirty years old and Daladier was reportedly 'stupefied' by the state of the machinery in the armaments factories. However, the problem of dated machinery was not specific to

the metallurgical or Defence industries. As Margairaz (1991, pp.404-13) outlines, the Committees of the Survey of Production found similarly dilapidated machinery in all sectors of the economy, though it glossed over the issue in the final report to concentrate on the shortage of skilled workers. That satisfied the political needs of the day.

3.3.4 A 'Gigantic Miscalculation'?²²⁶

Alfred Sauvy has been the leading academic crusader against the 40-hour week of 1936. It increased costs and unemployment, reduced production and investment, and exacerbated an otherwise non-constraining skilled labour shortage. It plunged the economy back into recession just when sustained recovery had been made possible by the devaluation of the franc. So the argument goes.

But the experience in the Defence industries led Frankenstein (1982, pp.234-38) to claim that the effects of the 40-hour week were overstated; Chapman (1991, p.140) does similarly for the aircraft industry; as does Margairaz (1991, pp.404-13) for French industry in general. It is also hard to make a convincing case that the 40-hour week was a constraint of the highest order when virtually all industries were working less than a 40-hour week by 1938. Indeed, the average working week had been falling consistently in all industries for the first 18 months of the 40-hour week,²²⁷ despite the reflationary effects of the devaluation of the France in September 1936. If there had

²²⁴ Bavarez (1991, p.111).

²²⁵ Gancarz (1991, pp.204-08).

²²⁶ This is the term used by Sauvy (1967, p.469) to describe the introduction of the 40-hour week.

²²⁷ Sauvy (1967, pp.552-53). The average hours of work in the textile industry fell to as low as 36.4 hours in May 1937.

been a labour shortage or if the 40-hour week had created a supply constraint, then surely average hours of work would have been increasing over this period.

However, as Vinen (1991) and Margairaz (1991) have shown, the employers were successful in promoting the view that a skilled worker shortage was placing a great burden on industry and limiting the prospects of reducing unemployment. The 40-hour week was abandoned in November 1938 and the revenge of the *patronat* was complete.

In the face of such sustained employer opposition it is not surprising to find that the employment effects were rather small, it is maybe even surprising to find that they were generally positive. The implementation of the shorter week could have been more adapted to the specific labour shortages in each industry, but its effectiveness would still have been limited in the face of employer manoeuvrings. The hours reductions of 1919 had, after all, been effectively ignored in the 1920s. One success of the 40-hour week, other than the limited employment increases in 1937, was that it remained as long as November 1938.

3.4 Conclusions

This Chapter has sought to outline and evaluate the three central pillars of French public policy against unemployment in the 1930s. The various attempts to initiate public works programmes went hand in hand with attempts to repatriate foreign workers in the pre-Popular Front era, while similarly the public works programmes

were intended to go hand in hand with the 40-hour week under the Popular Front government. That many of these policies were either not initiated or cut short is reflective of the external constraints on the implementation on public policy.

The most notable constraints were placed on the foreign worker policies and on those of the Popular Front. In these examples, the constraint was private industry. Employers were unwilling to have their skilled or very adaptive unskilled foreign workers repatriated. The Depression was always going to be finite and there was always going to be a need for 'quality' labour if any recovery was to be sustained. That had been the lesson of the reconstruction of the early 1920s.

Employers were similarly unwilling to have their working hours set for them. In the absence of the mass movement of workers in mid-1936 and the enormous strengthening of the union movement that followed, it seems unlikely that Blum would have introduced the 40-hour week at all. The Popular Front had already moved away from a commitment to 40 hours and even in the midst of an enormous strike wave, he was secretly negotiating with the employers a delaying tactic in introducing the shorter working week. The 'Pause' of February 1937 and the abandonment of the public works proposals were inevitable.

But there was no employer involvement in the public works programmes of the early 1930s. In this example, the constraint was fiscal orthodoxy. The continued attempts to deflate the economy and keep government spending under control were not consistent with a policy of debt-financed public works. On the contrary, the sporadic funds that were made available were not particularly large. Indeed, it was the contribution of the

local authorities to the public works agenda that ensured that it achieved some modicum of success.

So to the effectiveness of public policy. It cannot be argued that the policies outlined in this Chapter had a profound effect in reducing unemployment. Nevertheless, with regard to the proportion of the unemployed stock 'saved' by public policy, it is hard to find international examples of significant effects. The New Deal in the United States had reduced unemployment by about a quarter, it has been argued, but no more. In this light, French public policy was no failure. The public works programmes, though not achieving the same level of results as in the United States, did reduce unemployment by a not too dissimilar figure.

The effectiveness of the foreign worker and 40-hour week policies is less clear. The government was successful in repatriating over a quarter of a million foreigners, but doubts over how many would have left France anyway remain. There would certainly have been a short-term reduction in unemployment, but the longer-term effect would have negligible on the level of unemployment and damaging on the prospects for economic recovery.

Similarly, the effectiveness of the 40-hour week is unclear given the opposition of the employers. Employment was increased in 1937 and though part of this increase would have been attributable to the devaluation of the franc, there is still evidence of a limited net effect. But the brakes on economic recovery had already been applied. The resistance of the employers, the decade of negligible investment, the erosion of the skills of unemployed workers all served to limit the effectiveness of the policy.

Nevertheless, it was designed to be only part of a wider plan of increasing real consumer incomes. The plan disintegrated and the 40-hour week was left to be judged on its own. It has thus been labelled a failure.

The final point relates to the identification of the nature and structure of unemployment that took place in Chapter Two. French unemployment in the 1930s has been found to be among the most persistent and most variable according to region and industry in Europe. The need for region- and industry-specific measures is obvious, but it was less so at the time. It is also unclear that there would have been no budget or employer constraint on these policies had they been introduced with a greater degree of flexibility and targeting of specific sub-groups of the population/economy.

This Chapter has discussed the political obstacles to the implementation of the main counter-unemployment policies, as well as provided some quantitative micro-evidence on the effectiveness of these policies. It therefore provides a useful backdrop against which to gauge the next Chapter's macro-evidence on the effectiveness of these counter-unemployment policies. It is not enough to quantify the effects of these policies and label them as 'successes' or 'failures', this Chapter has sought to provide answers to the question 'Why?'.

A MODEL OF THE FRENCH LABOUR MARKET, 1920-1938

The development of an econometric model of the labour market brings the analysis of French interwar unemployment into line with much of the contemporary analysis of unemployment in interwar Britain, where the debate over the relative importance of aggregate demand, real wages and unemployment levels has been constructed largely within the field of quantitative analysis.¹ Such an approach has not been adopted with regard to analysing the French labour market between the wars, with the exception of the work of Pierre Villa (1991, 1993).

This approach also has two further objectives. Whilst the previous chapter examined the means by which the public authorities attempted to curb the rising unemployment of the 1930s, the overall effectiveness of these measures as a means of reducing unemployment can be estimated with the use of a full structural model of the labour market. Within this framework the net effect of these public measures upon the unemployment rate can be quantified through dynamic simulation of the labour market model, a process that takes into account the feedbacks and indirect effects of each of the policies in question. It therefore complements the previous Chapter's more detailed analysis of how the policies were formulated and implemented, but that was unable to gauge their effectiveness other

¹ These have been largely within the setting of a full structural model of the labour market - see Hatton (1988), Beenstock and Warburton (1991) and Dimsdale et al (1989), in particular - although alternative approaches such as those by Broadberry (1986) and Crafts (1987), have concentrated solely upon the aggregate wage equation as the main area of contention.

than their direct effect on employment. It is therefore a complement rather than a substitute for the archival and primary source approach of the previous Chapter.

This approach can also throw some light upon the debate over the causes of the French economic crisis of the 1930s. On one hand, Asselain (1984) and Sauvy (1967) stress the exogenous and "accidental" causes of the French depression: the devaluations of sterling in 1931 and the dollar in 1933 and the collapse of world prices, particularly for primary products. On the other, the analyses of Marseille (1980, 1984) and Boyer and Mistral (1983) centre more around the internal contradictions of the French economic expansion of the 1920s.

This quantitative approach is also adopted by Villa (1991, 1993), who develops a neo-Keynesian macro-model of the aggregate economy. The model here focuses exclusively upon the working of the labour market. It also differs in that it does not assume *a priori* that the labour market does not clear, instead such an imperfectly-competitive model is developed alongside and tested against a model that is consistent with the market clearing approach; it is left to the data to select between the two approaches.

The two contrasting models are developed in the next section, paying particular attention to their theoretical micro-foundations, with the results from the estimation of these models presented in the following section. A variety of simulations on the preferred model are performed and these are reported in the third section of this Chapter. Supporting evidence is presented in the fourth section, while concluding comments are offered at the end.

4.1 The Model

There are two types of model presented in this section: one with the assumption that the labour market clears continuously and the other with the assumption that it does not. Whilst the former assumes that firms (workers) are price (wage) takers and that unemployment is essentially voluntary, the latter reverses this to model an economy in which firms and workers may be price and wage setters, thus creating the scope for involuntary unemployment. The market-clearing model thus comprises only equations for labour demand and supply, while the imperfectly-competitive model also involves equations for the price setting behaviour of firms and general wage setting behaviour within the labour market. The imperfectly competitive model requires two further identities to close this model, namely for unemployment and consumer prices.

The imperfectly-competitive model can be extended in two further directions. In Section 3.3.1.2 we stressed the importance of short-time working in the 1930s as a deliberate means of limiting unemployment. This suggests there may be a justifiable inclusion of the firm's demand for hours as well as for employees within the demand for labour services schedule. Secondly, in Section 3.2.2 we discussed the administrative controls that were placed on the inflow of foreign workers in response to the problem of unemployment. Hence, domestic and foreign workers may not be homogenous groups within the aggregate labour supply function, and so should be modelled separately.

The extended imperfectly-competitively model thus comprises of equations for the firm's demand for employees and hours, the supply of domestic and foreign labour, wage- and price-setting behaviour, and two identities for consumption prices and

unemployment to close the model. On the other hand, the market-clearing model consists merely of labour demand and supply equations. It is therefore far more parsimonious and so model comparison should concentrate upon whether the increased sophistication of the imperfectly-competitive model leads to significantly greater results.

In addition to these two models, the full imperfectly-competitive model is also run without the two extensions discussed above, again with the intention of determining whether the greater sophistication of the extended model yields notably better results.

4.1.1 Firms

Following Andrews (1988), the representative firm i 's demand for labour schedule is derived from the firm's production function, which is given by

$$(1) \quad Y_i = f(A_i N_i / K_i, M_i) K_i$$

where A is labour-augmenting technical change, N is employment, K is capital stock and M represents other factor inputs. The firm's problem is to maximise the profit function

$$(2) \quad \Pi_i = P \cdot f(A_i N_i / K_i, M_i) K_i - W(1 + t_1) N_i / A_i - P_M M_i$$

with respect to the short-run factors of production, employment and other factor inputs. Note that P is the firm's output price, W is the nominal wage, t_1 is the rate of employer social security contributions, and P_M is the nominal price of other factor inputs, and are all determined outside the firm. Solving the resultant first-order conditions for N and

aggregating over all firms in the economy, yields in (natural) logarithmic form:²

$$(3) \quad n = n(w + t_i - p, a, p_m - p, k)$$

which is the market-clearing labour demand schedule. Note that in aggregate, imports and other inputs are the same thing, so the aggregate version of (3) can be written with p_m as opposed to p_M .³

The imperfectly-competitive model, as developed by Layard and Nickell (1985, 1986), differs in that the representative firm may be a price-setter and so it needs to forecast demand for its output. Expected sales are assumed to depend upon price competitiveness of the firm's produce (P_i/P^e), where P^e is the expected aggregate price level, and the expected level of aggregate demand within the economy, σ^e . The firm's expected demand can therefore be written as

$$(4) \quad Y_i^e = D\left(\frac{P_i}{P^e}, \sigma^e\right)$$

The firm's pricing rule is then given as a simple mark-up (v) over marginal costs, which is inversely related to the level of aggregate demand:

$$(5) \quad P_i = v(\sigma^e) MC\left(\frac{W_i(1+t_i)}{A_i}, P_M, \frac{Y_i}{K_i}\right)$$

² Variables written in italics and lower case are in logarithmic form.

³ Dimsdale *et al* (1989, note 9, p.279).

where MC is the marginal cost function corresponding to (1). If we assume that the firm sets output equal to expected demand ($Y = Y^e$) and aggregate over all firms in the economy, the price schedule can be derived by combining (4) and (5), in logarithmic form:

$$(6) \quad p = p(w + t_1, a, p_m, \sigma^e, y - k)$$

If we now use the production function to eliminate the capital stock variable from (6), this can be restated as:

$$(7) \quad p = p(w + t_1, a, p_m, \sigma^e, y - n)$$

If we note that firms adjust their capacity utilisation rate in response to short run variations in the level of aggregate demand, we can use the capacity utilisation rate as a suitable proxy for aggregate demand in this context. The price equation can thus be given as:

$$(8) \quad p = p(w + t_1, a, p_m, CU, y - n - h)$$

where CU is the rate of capacity utilisation and labour productivity is now specified in hourly terms, which is a more appropriate in determining the mark-up of price over hourly labour costs. Note also that labour-augmenting technical progress will have no effect on prices if the technology is assumed to be Cobb-Douglas.

The production function can also be used to eliminate the output variable from (6), from which we can then derive the marginal revenue product condition that will act as the basic labour demand schedule:

$$(9) \quad n = n(w + t_1 - p, a, p_m - p, \sigma^e, k)$$

With regard to the aggregate demand variable, σ^e , we assume this to be a function of competitiveness (P_x/P) and government expenditure (z). These variables are chosen specifically to enable further investigation of the 'international' causes of the rise in unemployment and the effectiveness of public (works) expenditure programmes in affecting the labour market. The labour demand schedule can now be given by:

$$(10) \quad n = n(w + t_1 - p, a, p_m - p, k, p_x - p, z)$$

which serves as the labour demand schedule in the basic imperfectly-competitive model.

To these price-setting and demand for labour decisions, we now turn to the firm's demand for hours. The seminal work on the firm's demand for labour services was undertaken by Nadiri and Rosen (1969, 1973) who introduced the concept of interrelated factor demands. Each component of the labour services function has its own separate long run expression, but the dynamic adjustment paths towards these long run equilibria are assumed to be interrelated, thus disequilibrium in the demand for workers can influence the (compensatory) demand for hours and vice-versa.⁴ This interrelationship

⁴ Although the full Nadiri and Rosen system comprised of six equations for production workers, hours,

between demand for workers and for hours can be written in aggregate as:

$$(11) \quad \begin{aligned} \Delta N &= \lambda_{11}(N^* - N_{-1}) + \lambda_{12}(H^* - H_{-1}) \\ \Delta H &= \lambda_{21}(N^* - N_{-1}) + \lambda_{22}(H^* - H_{-1}) \end{aligned}$$

However, the sample period over which the model is to be estimated contains a large change in the length of the standard working week.⁵ Despite the fact that average hours are commonly assumed to be homogenous with respect to standard hours in the long run, the adjustment of average hours to a new long-run equilibrium around this new level of standard hours may not be instantaneous and thus will affect the (interrelated) adjustment paths of hours and labour demand. Hence we can revise (11) to take account of this structural break in hours of work:

$$(12) \quad \begin{aligned} \Delta N &= \lambda_{11}(N^* - N_{-1}) + \lambda_{12}(H^* - H_{-1}) + \lambda_{13}(H^s - H_{-1}) \\ \Delta H &= \lambda_{21}(N^* - N_{-1}) + \lambda_{22}(H^* - H_{-1}) + \lambda_{23}(H^s - H_{-1}) \end{aligned}$$

Given that transactions costs involved in adjusting employment are normally assumed to be smaller than those involved in adjusting the number of hour of work,⁶ the own adjustment coefficient on employment (λ_{11}) should be significantly lower than the own adjustment coefficient on labour utilisation (λ_{22}). Also, as this model assumes that firms may not change employment levels to their 'optimal' (equilibrium) level

capital stock, capital utilisation, inventories and non-production workers, we have adapted the model to just the two equation, labour services component.

⁵ Although the metallurgical industry had implemented the 40-hour week in October 1936, the majority of industries did so in 1937. We therefore define the change in standard hours to have taken place in 1937.

⁶ See Hamermesh (1993) and Hart (1988) for useful surveys of the dynamic responses of employment and

instantaneously, employers may seek to change the hours of work to accommodate such short-run deviations in order to achieve desired level of output. Thus, λ_{21} would be expected to be positive. Nadiri and Rosen (1969) argue that λ_{12} can be expected to be negative if unanticipated changes in output are first met by changes in hours of work rather than number of workers (see footnote 6). Insofar as the employment effects of reducing the working week are indeterminate, the sign of λ_{13} cannot be predicted, but λ_{23} is unambiguously positive.

If we present the long-run expressions for the demands for workers and hours as follows, then the estimating equations can be derived using the short-run factor adjustment sub-model above. In general form

$$(13) \quad N^* = \alpha + \beta x \qquad H^* = \delta + \gamma y$$

where x is a vector of variables affecting firms' demand for labour and y is a vector of variables affecting firms' demand for hours. Substitution of (13) into (12) yields

$$(14) \quad \begin{aligned} N &= (\lambda_{11}\alpha + \lambda_{12}\delta) + (\lambda_{11}\beta)x + (\lambda_{12}\gamma)y + (1 - \lambda_{11})N_{-1} - \lambda_{12}H_{-1} + \lambda_{13}\Delta H^* \\ H &= (\lambda_{21}\alpha + \lambda_{22}\delta) + (\lambda_{21}\beta)x + (\lambda_{22}\gamma)y - \lambda_{21}N_{-1} + (1 - \lambda_{22})H_{-1} + \lambda_{13}\Delta H^* \end{aligned}$$

As Nadiri and Rosen show, if the aggregate production function from which the long run schedules were derived is not to be over identified, then the restriction

hours to output shocks. Their general conclusion is that firms adjust hours of work significantly before employment in response to such shocks.

$$(15) \quad |I - \lambda_{ij}| = 0 \quad i = 1,2, \quad j = 1,2$$

must hold.⁷ In our two factor labour services sub-model, the restriction for identification is

$$(16) \quad \lambda_{12} = \lambda_{11} - 1 \text{ and } \lambda_{21} = \lambda_{22} - 1$$

We can now reformulate the general equations (14) such that the labour services sub-model is identifiable

$$(17) \quad \begin{aligned} N &= (\lambda_{11}\alpha + \lambda_{12}\delta) + (\lambda_{11}\beta)x + (\lambda_{12}\gamma)y - \lambda_{12}(N_{-1} + H_{-1}) + \lambda_{13}\Delta H^s \\ H &= (\lambda_{21}\alpha + \lambda_{22}\delta) + (\lambda_{21}\beta)x + (\lambda_{22}\gamma)y - \lambda_{21}(N_{-1} + H_{-1}) + \lambda_{13}\Delta H^s \end{aligned}$$

It is straightforward to show that with the introduction of average hours of work as an additional factor input in the production function of equation (1), the demand for hours schedule (y) will contain the same elements as the demand for workers schedule (x). Thus the estimating equations for the demand for workers and hours can be derived using (10) and (17):

$$(18) \quad n = n(w + t_1 - p, a, p_m - p, k, p_x - p, z, n_{-1}, h_{-1}, \Delta h^s)$$

$$n_1 < 0, n_2 < 0, n_3 < 0, n_4 > 0, n_5 > 0, n_6 > 0, n_7 = n_8 > 0, n_9 \approx 0$$

$$(19) \quad h = h(w + t_1 - p, a, p_m - p, k, p_x - p, z, n_{-1}, h_{-1}, \Delta h^s)$$

$$h_1 \approx 0, h_2 < 0, h_3 < 0, h_4 > 0, h_5 > 0, h_6 > 0, h_7 = h_8 < 0, h_9 > 0$$

⁷ However, Nadiri and Rosen (1969) do not impose the restriction and so their results are difficult to interpret. Indeed, none of the studies surveyed in Hamermesh (1993, table 7.4, pp.265-67) seem to have applied the restriction or to have found the important negative sign on λ_{21} . One exception is Kokkelenberg

Note that several of the expected parameter signs differ from (18) to (19). Having assumed that the intermediate response of firms to a positive output shock is to increase hours of work, and only later employment, it can be shown that such an output shock will also lead to an increase in real wages. Nickell and Wadhvani (1990) develop such a model where 'insiders' (incumbent workers) can affect the nominal wage and so capture the increased rents in the form of higher wages, thereby reducing the incentive for firms to increase employment. There may be a positive short-run relationship between hours of work and real wages in such a model.

A variable that needs to be considered is the standard working week, h^s . The reduction in length of the standard working week from 48 hours to 40-hours per week in 1937 will affect not only the short-run adjustment of hours and workers, but the long-run equilibria themselves. If we impose the standard assumption of long-run homogeneity of standard and average working hours, then the hours schedule can be re-specified as a rate of labour utilisation schedule, and so represents short-run deviations of average hours of work from standard hours of work. The long run equilibrium values for hours and workers are given when average hours of work are equal to standard hours of work. The demand for workers and hours schedules can now be re-defined as

$$(20) \quad n = n(w + t_1 - p, a, \bar{p}_m - p, k, p_x - p, z, n_{-1}, (h - h^s)_{-1}, \Delta h^s)$$

$$n_1 < 0, n_2 < 0, n_3 < 0, n_4 > 0, n_5 > 0, n_6 > 0, n_7 = n_8 > 0, n_9 \approx 0$$

$$(21) \quad (h - h^s) = h(w + t_1 - p, a, \bar{p}_m - p, k, p_x - p, z, n_{-1}, (h - h^s)_{-1}, \Delta h^s)$$

$$h_1 \approx 0, h_2 < 0, h_3 < 0, h_4 > 0, h_5 > 0, h_6 > 0, h_7 = h_8 < 0, h_9 < 0$$

Note that the expected sign of h_9 is now negative; a reduction in the denominator (H^e) increases the value of the fraction (H/H^e) as a whole. In other words, the reduction of the working week reduces short-time working.

As an aside, using the identification restriction (16), the aggregate desired levels of employment and labour utilisation can also be solved from (12), which after a little manipulation yields.

$$(22) \quad N^* = N - \left[\left(\frac{\lambda_{12}}{1 + \lambda_{12} + \lambda_{21}} \right) \left(\Delta N + \Delta \left(\frac{H}{H^e} \right) \right) \right] - \left[\left(\frac{\lambda_{13} + \lambda_{13}\lambda_{21} - \lambda_{23}\lambda_{12}}{1 + \lambda_{12} + \lambda_{21}} \right) \Delta H^e \right]$$

$$(23) \quad \left(\frac{H}{H^e} \right)^* = \left(\frac{H}{H^e} \right) - \left[\left(\frac{\lambda_{21}}{1 + \lambda_{12} + \lambda_{21}} \right) \left(\Delta N + \Delta \left(\frac{H}{H^e} \right) \right) \right] - \left[\left(\frac{\lambda_{23} + \lambda_{13}\lambda_{21} - \lambda_{23}\lambda_{12}}{1 + \lambda_{12} + \lambda_{21}} \right) \Delta H^e \right]$$

With the *a priori* expectations of $-1 < \lambda_{12} < 0$ and $\lambda_{21} > 0$, the coefficient on the $(\Delta N + \Delta(H/H^e))$ term in (22) is negative and so 'optimal' employment levels are greater than actual employment levels if hours and employment are rising (in response to a positive output shock, for example). Conversely, the coefficient is positive in (23) and so 'optimal' hours of work are lower than actual hours of work for such an output shock. The short-run response to a positive output shock is therefore to increase hours of work to compensate for the inability (or unwillingness) of firms to adjust employment to the new 'optimal' level instantaneously.

With the *a priori* expectations of $\lambda_{13} \approx 0$ and $\lambda_{23} < 0$, the coefficient on the ΔH^e term in (22) is negative and so a reduction in the length of the standard working week is expected to lead to an 'optimal' level of employment that is lower than actual

employment, unless λ_{13} is sufficiently negative to offset this. The coefficient on the ΔH^s term in (23) is also expected to be negative and a reduction in the length of the standard working week will also lead to 'optimal' hours of work being lower than the actual hours of work. This reflects the fact that the full adjustment of hours to the new equilibrium, while being faster than that of employment, may not take place immediately and so the complete reduction in the standard working week may not be realised straight away in 'actual' hours of work.

It is now clear within this framework that in any evaluation of the effects of changing the length of the standard working week, particular attention must also be paid to these 'optimal' level of hours and employment, rather than just their actual levels. This approach has the advantage of identifying the expected effects of the lower working week without recourse to the actual effects, which can be affected by employer intransigence, for example.

On the firms' side of the labour market, the three models to be estimated can be summarised as follows: the market-clearing model investigates only the representative firm's demand for workers; the basic imperfectly-competitive model adds a price-setting decision for the firm to make in addition to the employment decision; while the full imperfectly-competitive model adds a third decision variable for the firm, hours of work. The firm in the full imperfectly-competitive model therefore sets prices according to its forecast of the future demand and then sets the appropriate levels of employment and hours to achieve the level of output necessary to meet the demand.

4.1.2 Households

The representative individual/household j 's labour supply is derived from the maximisation of the utility function

$$(24) \quad \max U^*(C_j, H_j) \quad U_1^* > 0, U_2^* < 0$$

where U^* is utility and C is consumption, subject to the budget constraint

$$(25) \quad P^c C_j \leq W(1-t_2)H_j + B + I_j$$

where P^c is the consumer price index, t_2 is the direct tax rate, B is unemployment compensation and I is non-wage income from interest, rent, and/or dividends. If we aggregate over all suppliers of labour in the economy, then the budget constraint becomes

$$(26) \quad P^c C \leq (1-U) \cdot W(1-t_2)H + UB + I$$

where U is the rate of unemployment in the aggregate economy. The solution to this problem is, in logarithmic form

$$(27) \quad l = l(w - t_2 - p^c, U, b - p^c, i - p^c - pop, pop_w)$$

which is the aggregate labour supply schedule for the basic imperfectly-competitive

model once a population of working age variable has been added as a normalising factor and the non-wage income variable is amended to measure *per capita* real non-wage income. If, as the full imperfectly-competitive model assumes, hours of work are allowed to deviate from standard hours of work, the hours term in (26) is no longer a constant and so may enter (27) to form the aggregate labour supply schedule for the full imperfectly-competitive model:

$$(28) \quad l = l(w - t_2 - p^e, U, b - p^e, i - p^e - pop, pop_w, h - h^*)$$

$l_1 > 0, l_2 < 0, l_3 > 0, l_4 < 0, l_5 = 1, l_6 > 0$

Concerning the specification of the aggregate labour supply function, it is the market-clearing model that displays the greater economic sophistication as it involves an intertemporal utility maximisation problem, as opposed to the static problem described above. Taking the Lucas-Rapping (1970) model as the primary example, the utility function (24) is now extended to incorporate four commodities: current goods consumption and labour supply and 'future' goods consumption (C_j^*) and labour supply, measured in the future hours of work (H_j^*):

$$(29) \quad \max U^*(C_j, C_j^*, H_j, H_j^*)$$

which is then maximised subject to the modified budget constraint that the present value of consumption cannot exceed the present value of income. Present values are calculated using the nominal interest rate, r , which households face when they borrow or lend money. Future wages and prices are given by W^* and P^* respectively. The 'intertemporal' budget constraint is now

$$(30) \quad P^c C_j + \frac{P^{c*}}{1+r} C_j^* \leq W(1-t_2)H_j + \frac{W^*(1-t_2)}{1+r} H_j^* + B + I_j$$

Note that there is only room for search (voluntary) unemployment in this model and so the labour market is assumed to clear; labour supply is equal to labour demand which are both given by employment (N). If we aggregate over the population of working age and renormalise upon consumer prices, the solution to this problem yields the aggregate labour supply function for the market-clearing model, which can be specified as the Lucas-Rapping labour supply equation:⁸

$$(31) \quad \ln\left(\frac{N}{POP_w}\right) = \alpha_0 + \alpha_1 \ln\left(\frac{W}{P^c}\right) - \alpha_2 \ln\left[\frac{W^*}{P^c(1+r)}\right] - \alpha_3 \ln\left[\frac{P^{c*}}{P^c(1+r)}\right] \\ - \alpha_4 \ln\left(\frac{H}{H^*}\right) - \alpha_5 \ln\left(\frac{B}{P^c}\right) - \alpha_6 \ln\left(\frac{I}{P^c \cdot POP}\right)$$

where all the α 's are positive. Noting that $\ln(1+r) \approx r$, (31) may be re-arranged to give

$$(32) \quad \ln\left(\frac{N}{POP_w}\right) = \beta_0 + \beta_1 \ln\left(\frac{W}{P^c}\right) - \beta_2 \ln\left(\frac{W}{P^c}\right)^* + \beta_3 r - \beta_4 \ln\left(\frac{P^{c*}}{P^c}\right) \\ - \beta_5 \ln\left(\frac{H}{H^*}\right) - \beta_6 \ln\left(\frac{B}{P^c}\right) - \beta_7 \ln\left(\frac{I}{P^c \cdot POP}\right)$$

where all the β 's are positive. Strictly speaking, the solution to equations (29) and (30) should involve the restriction in (32) that $\beta_3 = \beta_4$, but this is not adopted by Lucas and

⁸ Lucas and Rapping normalise labour supply (employment) upon the number of households. Given a lack of annual data on the number of households in France in the interwar period, an alternative normalisation is upon the population of working age, which also provides a more consistent comparison with the labour supply functions in the imperfectly-competitive models.

Rapping (or Altonji, 1992) and so the unrestricted form is adopted here, with the restriction being tested post-regression.

It is now necessary to construct a mechanism by which wage and price expectations, W^* and P^{c*} are formed. Following Lucas and Rapping, a simple adaptive scheme for both series is adopted, such as

$$\begin{aligned} \ln \left(\frac{W}{P^c} \right)^* &= \delta \ln \left(\frac{W}{P^c} \right) + (1 - \delta) \ln \left(\frac{W}{P^c} \right)_{-1} + \delta' \\ (33) \quad \ln P^{c*} &= \delta \ln P^c + (1 - \delta) \ln P^c_{-1} + \delta'' \end{aligned}$$

where $0 < \delta < 1$ and δ' and δ'' are the anticipated trends in real wages and prices respectively. Note that both price and wage expectations have the same reaction parameter δ . A Koyck transformation can now be used to eliminate the unobserved $(W/P)^*$ and P^{c*} between (32) and (33) to yield the market-clearing labour supply equation

$$\begin{aligned} \ln \left(\frac{N}{POP_w} \right) &= [\delta \beta_0 - \delta' \beta_2 - \delta'' \beta_3] + (\beta_1 - \delta \beta_2) \ln \left(\frac{W}{P^c} \right) - (1 - \delta) \beta_1 \ln \left(\frac{W}{P^c} \right)_{-1} \\ &\quad + \beta_3 r - (1 - \delta) \beta_3 r_{-1} + (1 - \delta) \beta_4 \ln \left(\frac{P^c}{P^c_{-1}} \right) - \beta_5 \ln \left(\frac{H}{H^*} \right) \\ (34) \quad &\quad + (1 - \delta) \beta_5 \ln \left(\frac{H}{H^*} \right)_{-1} - \beta_6 \ln \left(\frac{B}{P^c} \right) + (1 - \delta) \beta_6 \ln \left(\frac{B}{P^c} \right)_{-1} \\ &\quad - \beta_7 \ln \left(\frac{I}{P^c \cdot POP} \right) + (1 - \delta) \beta_7 \ln \left(\frac{I}{P^c \cdot POP} \right)_{-1} + (1 - \delta) \ln \left(\frac{N}{POP_w} \right)_{-1} \end{aligned}$$

The specification is important for interpretation of the regression coefficients and for evaluation of the intertemporal substitution hypothesis.

The labour supply function in the market-clearing model differs from that in the imperfectly-competitive models in two major respects: there is the assumption of no 'involuntary' unemployment, hence only the search unemployment variable of real unemployment benefits enters the labour supply function, and whereas the labour supply decisions in the imperfectly-competitive models are static, within the market-clearing approach the labour supply decisions are truly intertemporal.

As mentioned earlier in this chapter, there is a possible further extension to the labour supply function: a relaxation of the assumption that domestic and foreign workers are homogenous groups within the aggregate supply function. The literature on the supply of foreign labour concentrates on the worker's decision to migrate to/from the host country. In other words, the prevailing analysis is on the flow of foreign labour supply, rather than the stock. However, it is the stock of foreign workers that we wish to model. The following solution is proposed.

Combining the two migration flows, and their individual analyses, leads to an analysis of net migration flows. If the data on migration flows to be used is annual, then if we further assume that all foreign workers resident in the host country review their migration decision annually,⁹ the labour supply of the stock of foreign labour resident in the host country can also be analysed in terms of migration (flow) variables.

To illustrate this further, we can assume that the migration decision is based upon a vector of economic variables X within the host country i and the home country j . The

⁹ While this is a rather restrictive assumption for all foreign workers in the host country, it is not entirely unreasonable approximation: the majority of work permits for foreign workers were of one or two year duration, foreign entrants could not change occupation within one year of entering France, and identity

(0,1) migration probability function for the foreign workers entering the host country is

$$(35) \quad \Pr(\text{migration}_{ij}) = \sigma_0 + \sigma_1 X_i + \sigma_2 X_j = 1$$

for foreign workers returning to their home country from the host country,

$$(36) \quad \Pr(\text{migration}_{ij}) = \varsigma_0 + \varsigma_1 X_i + \varsigma_2 X_j = 1$$

and for foreign workers resident in the host country who decide to remain within that country,

$$(37) \quad \Pr(\text{migration}_{ij}) = \tau_0 + \tau_1 X_i + \tau_2 X_j = 0$$

The aggregate supply of foreign workers within the host country at the end of this decision process is given by

$$(38) \quad F = (\sigma_0 - \varsigma_0 + \tau_0) + (\sigma_1 - \varsigma_1 + \tau_1)X_i + (\sigma_2 - \varsigma_2 + \tau_2)X_j$$

which is entirely specified in terms of migration variables. It is important to note that while some variables may be particularly important in explaining one of the three migration decisions above, its effect may be 'washed out' or amplified by their importance (and sign of the coefficient) in the other two equations. There is no guarantee that while certain variables may be theoretically important in explaining gross migration

cards were valid for maximum of three years only.

flows, they will continue to be so in explaining the labour supply decisions of foreign workers in the host country.

If we now turn to specify the determinants of the migration decision, the framework to be adopted will be that of Todaro (1969, 1976). In the Todaro model, assuming rational expectations, a migrant chooses the labour market opportunity that maximises the discounted present value of the expected net gains of his/her labour. That is, the migrant measures the future expected net gains by the difference in average real wages, adjusted by the probability of obtaining a job in the foreign labour market and discounted by a rate reflecting his/her degree of time preference over their life cycle.

The Todaro model can thus be summarised as

$$(39) \quad V(0) = \int_{t=0}^{\infty} \left[p(t) \left(\frac{W}{P^f} \right)_t - \left(\left(\frac{W}{P^c} \right) \right)_t \right] e^{-rt} dt - C(0)$$

where $V(0)$ is the discounted present value of the net gain from migrating, $p(t)$ is the probability of securing a job post-migration in period t , $(W/P^f)^f$ is the average consumption real wage in the destination country, W/P^c is the average consumption real wage in the home country, r is the migrant's time preference rate of discount and $C(0)$ is the one-time cost of the move. If $V(0)$ is positive, the individual will decide to migrate.

It is noticeable that the Todaro model does not allow for unemployment pre-migration, a result that arrives from the original orientation of the model towards

rural-urban migration rather than international migration; unemployment is assumed to be non-existent in the rural sector. If we correct this anomaly, the (international) migration function can be defined as, in logarithmic form

$$(40) \quad m = m(w - p^e, (w - p^e)^f, U, U^f)$$

where U^f is the unemployment rate in the destination country. One advantage with the specification of (40) is that it is expressed in terms of 'push' and 'pull' variables. That is, the economic conditions in home country 'push' the individual to migrate and/or the economic conditions in the potential destination country 'pull' him/her to migrate there. Hence, this model is often termed a 'push-pull' model.

Dependent upon the assumptions outlined on page 222, we can convert the 'flow' function (40) into a 'stock' foreign labour supply function. As the host country is France, we define (W/P^e) and U as the French consumption real wage and unemployment rate and $(W/P^e)^f$ and U^f as the 'foreign' consumption real wage and unemployment rate. The latter two variables are weighted averages of these variables in countries that provide migrants to the French labour market (see Data Appendix).

However, this 'push-pull' model rests solely on the supply-side of the migration decision, it does not consider the demand for foreign workers in the host country; for example, for workers with particular skills or just to help alleviate a general domestic labour shortage. To bring this model more into line with the specificity of the French interwar labour market, two further variables are introduced into this migration (foreign labour supply) function to reflect these demand-side factors.

The loss of nearly 1.5 million men in the First World War and the continued fall in the birth rate caused a the demographic hole in France that could only be filled by an organised immigration drive.¹⁰ To proxy this type of demand for foreign labour, we include the growth rate of domestic labour supply as an additional variable.

Another indication of the domestic demand for foreign labour can be given by the attitudes of the public authorities towards foreign workers. A variable is thus created as the proportion of the foreign worker population repatriated in any one year, the 'repatriation rate'. However, this variable would only measure the proportion of the foreign worker population *officially* repatriated; a great number of foreign workers left France voluntarily once they had been made unemployed and thus avoided being forcibly repatriated (see Chapter 3.3). A variable, M^f , is thus constructed as the proportion of the foreign worker population leaving France, voluntarily or not, in any one year, the 'remigration rate'. This variable therefore captures the encouragement of foreign workers to remain in France during much of the 1920s and also the sustained effort by the public authorities to encourage to leave or forcibly repatriate a very large proportion of these same workers during the early 1930s.

The foreign labour supply schedule is now given by

$$(41) \quad f = f(w - p^c, (w - p^c)^f, U, U^f, \Delta d, M^f)$$

$$f_1 > 0, f_2 < 0, f_3 < 0, f_4 > 0, f_5 < 0, f_6 < 0$$

¹⁰ The net rate of natural increase in population in the 1920s was only two per 1,000 per year. Hence, net immigration accounted for over 75% of the total population increase in the period 1921-1930

where Δd is the growth rate of domestic labour supply and M^r is the remigration rate.

With the splitting of aggregate labour supply into its domestic and foreign worker components (D and F respectively), (28) must be restated for the supply of domestic labour as

$$(42) \quad d = d(w - t_2 - p^e, U, b - p^e, i - p^e - pop, pop_w^d, h - h^1)$$

$$d_1 > 0, d_2 < 0, d_3 > 0, d_4 < 0, d_5 = 1, d_6 > 0$$

where the aggregate labour supply is the sum of the two parts, domestic and foreign labour ($L = D + F$).

On the households' side of the labour, the three models to be estimated can be summarised as follows: the basic imperfectly-competitive model derives the aggregate labour supply as the solution to a static utility maximisation problem, whereas this problem is placed in an intertemporal framework to derive the market-clearing aggregate labour supply function, in which unemployment variables play no effect.

The full imperfectly-competitive model returns to the static utility maximisation framework, but makes the important distinction that this type of utility maximisation problem is relevant only for domestic workers; foreign workers face a very different utility maximisation problem and so they must be treated as different types of labour within the aggregate labour supply function.

(Cross, 1983, p.71; Tapinos, 1975, p.7).

4.1.3 Wages

While aggregate wages are simply given by that value which clears the labour market for the market-clearing model, their determination needs to be modelled within the imperfectly competitive models. We follow the approach taken by Hatton (1988), and earlier Sargan (1964), who specify a short-run wage adjustment mechanism with a long-run relationship embedded within it. As in Hatton (1988), the interpretation put on the 'target' real wage is that of a 'desired' real wage of workers (pre-wage bargain), but an attempt is made in this Chapter to explicitly model the determination of this 'desired' real wage.

It is assumed that firms and workers (unions or 'insiders') bargain over wages and thus workers are able to influence wages to a certain degree. This wage bargaining model will be detailed later, but first the wage adjustment process is assumed to be given by

$$(43) \quad \Delta w_t = \mu_1 \Delta p_t^c + \mu_2 \left[(w - p^c)_t^* - (w - p^c)_{t-1} \right] \quad \mu_1, \mu_2 > 0$$

where $(w - p^c)$ is the 'desired' (consumption) real wage. Hence, workers seek to affect nominal wages to compensate for changes in the consumer price level (inflation) and for any deviation of last period's real wage from the 'desired' real wage period. The long run solution to (43) is given when $(w - p^c) = (w - p^c)^*$, which suggests that in equilibrium (when wage and price inflation is zero), workers are paid their 'desired' real wages. This is a rather strong result, particularly if a wage function such as (43) is used in a model where primary goal is to derive long run (equilibrium) rates of unemployment. It now remains to derive workers' 'desired' level of real wages.

We follow the general approach of the insider-outsider models of wage determination, where it is not important that unions actually exist or are numerical strong (which they were not in France at this time), merely that workers act collectively.¹¹ The very long durations of unemployment found in Chapter Two are supportive of a strong insider-outsider mechanism. This rent-creating collective activity enables workers to bargain with firms over wages.

The Nash solution to a wage bargain is usually determined in terms of current and fall-back utilities of firms and workers, however in determining 'desired' (pre-bargain) real wages we need only look at the workers' input into the bargaining process. Assuming risk neutrality and that utility is a separable function of real income alone, the expected utility function for workers remaining with the representative firm i after the wage bargain can be expressed merely as a function of the real wage outcome. For those workers who do not remain with the firm after the wage bargain, expected utility can be expressed as a function of the expected alternative real wage in the labour market (\tilde{W}/P^e) , weighted by the probability of gaining an alternative job (ω), plus the level of real unemployment benefit if the worker is unsuccessful in gaining alternative employment (B/P^e).

The expected utility of all workers within the firm i before the wage bargain, that is, before they submit their nominal wage demand to the wage bargain that they expect will achieve their 'desired' real wage, can therefore be given by

¹¹ See in particular Lindbeck and Snower (1989, 1990) and Nickell and Wadhwani (1990).

$$(44) \quad (1 - \theta) \frac{W_i^e}{P^{ce}} + \theta \left[\frac{\bar{W}}{P^{ce}} (1 - \omega(U)) + \frac{B}{P^{ce}} \omega(U) \right]$$

where θ is the probability of being fired post-wage bargain, which now needs to be derived.

Lindbeck and Snower (1990) present three scenarios dependant upon the outcome of the wage bargain: (i) the 'hiring scenario' which occurs when the real wage is set low enough to induce the firm to set its employment above its initial insider workforce - new workers are hired and no incumbents are fired; (ii) the 'firing scenario' which occurs when the real wage is set high enough to induce the firm to set its employment level beneath its initial workforce - no new workers are hired and some incumbents are fired; and (iii) the 'retention scenario' which occurs when the real wage is set such as to induce the firm to retain its initial workforce, but to hire no new workers.

Incumbent workers, Lindbeck and Snower argue, will always choose to bargain for nominal wages such that the real wage will result in a 'retention scenario' as they do not want to lose their jobs and do not want new entrants to enter the firm as it would reduce their probabilities of survival at any given wage.

Therefore, if $\bar{N}_t(W_t(1 + t_1)/P)$ is the level of employment determined by the real wage outcome of the wage bargain and N_{t-1} represents the number of incumbent workers, the probability of being fired is zero if $N_{t-1} < \bar{N}_t$, and if $N_{t-1} > \bar{N}_t$, then it is $1 - E(\bar{N}_t | \bar{N}_t < N_{t-1}) / N_{t-1}$.

The overall probability of being fired, θ , is therefore given by

$$(45) \quad \begin{aligned} \theta &= \Pr(\bar{N}_t < N_{t-1}) \left[1 - \left[E(\bar{N}_t | \bar{N}_t < N_{t-1}) / N_{t-1} \right] \right] \\ &= \theta \left(\frac{\bar{N}_t}{N_{t-1}}, \frac{W_t(1+t_1)}{P^e} \right) \quad \theta_1 < 0, \theta_2 > 0 \end{aligned}$$

The substitution of (45) into (44) yields a 'desired' real wage schedule

$$(46) \quad (w - p^e)^* = w(\bar{w} - p^e, U, b - p^e, \Delta n_t, t_1)$$

where the expected consumer price level is replaced by the actual level, invoking rational expectations and instrumenting P^e using appropriate instruments. If we now aggregate over the economy such that $W_t = \bar{W}$, and allow for the desire of workers for changes in standard hours to be wage-compensated, (46) can be restated as¹²

$$(47) \quad (w - p^e)^* = w(U, b - p^e, \Delta n, t_1, h^*)$$

If we now substitute (47) into our short-run wage adjustment equation (43), we have the following wage function which is essentially a Phillips curve relationship

$$(48) \quad \Delta w = w(\Delta p^e, U, (b - p^e), \Delta n, t_1, h^*, (w - p^e)_{-1})$$

$w_1 > 0, w_2 < 0, w_3 > 0, w_4 > 0, w_5 > 0, w_6 < 0, w_7 < 0$

¹² Through the assumption that the coefficient on the Δn is positive and using the identity $\Delta n \approx -\Delta U$, the insider-outsider model thus predicts hysteresis in unemployment.

which acts as the wage equation in this imperfectly-competitive model of the labour market.

4.1.4 Summary Statement of the Models

The market-clearing model is a two-equation model and is given by equations (3) and (34):

$$n = n^d(w + t_1 - p, a, p_m - p, k)$$

$$n = n^s \left(w - t_2 - p^c, (w - t_2 - p^c)_{-1}, r, r_{-1}, \Delta p^c, h - h^s, (h - h^s), b - p^c, (b - p^c)_{-1}, i - p^c - pop, pop_w \right)$$

Real wages are given by the equivalence of labour supply and labour demand and thus is a reduced-form equation derived from (3) and (34). Note that both these equations are determined in terms of employment, i.e. there is no (involuntary) unemployment.

The basic imperfectly competitive model consists of four behavioural equations (8), (10), (27) and (48), and two identities:

$$p = p(w + t_1, a, p_m, CU, y - n - h)$$

$$n = n(w + t_1 - p, a, p_m - p, k, p_x - p, z)$$

$$l = l(w - t_2 - p^c, U, b - p^c, i - p^c - pop, pop_w)$$

$$\Delta w = w(\Delta p^c, U, (b - p^c), \Delta n, t_1, h^s, (w - p^c)_{-1})$$

$$p^c = p + t_1, \quad U = n^s - n^d$$

The basic imperfectly-competitive model therefore solves for labour demand and supply nominal wages, producer and consumption prices, and unemployment.

The full imperfectly-competitive model consists of six behavioural equation (8), (20), (21), (42), (41) and (48), and three identities:

$$\begin{aligned}
 p &= p(w + t_1, a, p_m, CU, y - n - h) \\
 n &= n(w + t_1 - p, a, p_m - p, k, p_x - p, z, n_{-1}, (h - h^*)_{-1}, \Delta h^*) \\
 (h - h^*) &= h(w + t_1 - p, a, p_m - p, k, p_x - p, z, n_{-1}, (h - h^*)_{-1}, \Delta h^*) \\
 d &= d(w - t_2 - p^c, U, b - p^c, i - p^c - pop, pop_w^d, h - h^*) \\
 f &= f(w - p^c, (w - p^c)^f, U, U^f, \Delta d, M^f) \\
 \Delta w &= w(\Delta p^c, U, (b - p^c), \Delta n, t_1, h^*, (w - p^c)_{-1}) \\
 p^c &= p + t_3 \quad L = D + F \quad U = n^s - n^d
 \end{aligned}$$

The full imperfectly-competitive model therefore solves for demand for workers and hours, labour supply of domestic and foreign workers, nominal wages, producer and consumption prices, as well as unemployment.

4.2 Regression Results

The dataset used for the empirical testing of the models developed in the previous section contains annual observations on a wide range of French economic variables

covering the years 1919 to 1939. The primary source for this data is Villa (1993), though some amendments and additions to this dataset to have been made, full details being outlined in the Data Appendix.

All three models are tested on this dataset and their ability to explain the pattern of unemployment in France between the wars is evaluated. These models are denoted in this section as Model 1 (market-clearing model); Model 2 (reduced imperfectly-competitive model); and Model 3 (full imperfectly-competitive model)

4.2.1 Demand for Workers and Hours

The estimated versions of the models are as described in the previous section, with one minor modification: due to the existence of time lags in the filtering through of the economy of changes in the level of aggregate demand, lags on the international competitiveness and government expenditure variables are added. The current government expenditure variable is found to be generally statistically insignificant, even without the introduction of its lagged value, and so is omitted.

The estimation results for the three demand for labour functions are presented in Table 4.1. The overall fit of the regressions is good for all the models, even for the parsimonious market-clearing model, though the reduced imperfectly-competitive model does fail the Durbin test for serial correlation.

However, while the \bar{R}^2 statistic and the significance of the individual coefficients may be impressive for Model 1, the specification of labour demand function without

Table 4.1 Labour Demand Equations

<i>Independent Variables</i>	<u>Model 1</u>		<u>Model 2</u> <i>Dependent Variable</i>		<u>Model 3</u>	
	ln N		ln N		ln N	
Constant	2.15	(2.56)	0.798	(1.16)	2.769	(6.64)
ln N_{-1}	0.545	(6.16)	0.556	(8.16)	0.409	
ln $(W(1+t_1)/P)$	0.029	(0.63)	-0.070	(1.73)	-0.122	(3.68)
ln K^*	0.316	(5.05)	0.535	(7.74)	0.452	(10.4)
ln a	-0.055	(3.51)	-0.080	(6.11)	-0.058	(6.67)
ln (P_m/P)	0.104	(6.84)	0.011	(0.31)	-0.030	(1.07)
ln $(H/H^s)_{-1}$					0.409	(9.92)
ln (P_x/P)			0.091	(1.95)	0.087	(2.59)
ln $(P_x/P)_{-1}$			0.064	(2.16)	-0.0004	(0.02)
z_{-1}			1.469	(5.09)	0.756	(3.93)
$\Delta \ln H^s$			-0.002	(0.03)	-0.095	(2.12)
\bar{R}^2	0.969		0.985		0.990	
s.e.	0.011		0.008		0.006	
Durbin's h	-1.168		-1.854		-1.449	

Notes:

- i) The sample period is 1920-1938.
- ii) White's heteroskedasticity-consistent t-ratios in parentheses.
- iii) The parameter estimates are generated by 3SLS using TSP 4.3.
- iv) The instruments used in each of the models are Fair's instruments

aggregate demand variables does appear to lead to biases in some of the parameter estimates. The real import price variable can have an ambiguous sign: a positive effect on employment of rising real import prices if those imports are final good substitutes; a negative effect of rising real import prices if those imports are complementary inputs in the production process. With the absence of the price competitiveness variable which is intended to capture the first of the effects, the real import price variable is dominated by this demand-side effect, when it was the factor price effect that is assumed to dominate in a market-clearing model. The real wage variable also has a coefficient of the 'wrong' sign; again, it appears that the lack of demand variables does lead to bias in a parameter estimate.

Model 2 adds demand terms to the market-clearing labour demand function, but does not incorporate the interrelatedness of the firm's demand for hours and workers. The demand terms are all found to be statistically significant and of the correct sign and real wages now have the expected negative effect on employment.

The ambiguous effect of real import prices is now confirmed with the addition of the price competitiveness variable. Model 2 therefore, despite the evidence of serial correlation, performs much better than Model 1 in representing the demand for labour.

In Model 2, both the current and lagged competitiveness variables are statistically significant, with the immediate impact of a change in price competitiveness being larger than after a year's interval. This is in contrast to Model 3, where a change in price competitiveness has an effect on labour demand in the very short run only. As detailed earlier, Nickell and Wadhvani (1990) show that a direct effect of a positive output shock is to raise nominal wages if 'insiders' or incumbent workers are able to influence the wage bargain, thereby depressing the employment-creating potential of the output shock. It has already been assumed that workers are able to affect the wage bargain in the imperfectly-competitive models and the unemployment durations given in Chapter Two are indicative of a strong insider-outsider mechanism. In this way, there may be a positive correlation between wages and output.

If we consider an unanticipated increase in price competitiveness, the increased economic rent from the increased demand for goods may be captured by 'insiders' in the form of higher nominal wages after the competitiveness shock. The initial effect of the increased competitiveness may be to increase employment, but if another direct effect is

to increase the nominal wage (and thus real wage) in the next period, the employment increase of the first period will be muted in the second, dependant upon the real wage elasticity of employment. As can be seen from Table 4.1, the much greater short run real wage elasticity of employment in Model 3 eliminates the positive employment effect of competitiveness after one year.

It is noticeable that both the imperfectly-competitive models predict that increased government expenditure lead to an increase in employment in the following period.¹³ The effect of counter-cyclical government expenditure is evident and supports the results of the previous Chapter, albeit with a different measure of fiscal intervention.

Another important prediction from Model 3 is that the reduction of the standard working week in 1936 did have a lasting effect upon the demand for labour. This contrasts with the suggestions from Chapter Three that the effect would be short-term only due to the opposition of the employers. The prediction of Model 2 which is more in line with conventional economic thought on the matter. The positive and strongly significant relationship between employment and the labour utilisation rate yields a positive and sustained employment effect from the reduction in the standard work week (which had increased the labour utilisation rate), but lagged one period. The change in standard hours variable therefore merely captures the same-period positive employment effect that the lagged labour utilisation variable cannot. As the employment effect of reducing the standard working week is sustained over the two years 1937 and 1938, the one-

¹³ One point of concern is the prediction that a continued increase in government expenditure will lead to a continued increase in employment. This is clearly unsatisfactory and would require the estimation of an additional equation for the government budget constraint. This is going beyond the bounds of a labour market model and labour market data, but it is one area in which the model could be improved in the future.

period change in standard working hours variable is unable to capture this effect by itself and so it is statistically insignificant in Model 2 which does not allow for the interrelatedness of workers and hours.

The results for the demand for hours (labour utilisation) equation within the full imperfectly-competitiveness model are displayed in Table 4.2. Again, the goodness-of-fit of the regression is satisfactory, as is the lack of serial correlation. The coefficients are generally well-determined and of the correct sign, though there are a couple of notable exceptions.

As outlined earlier, if workers are able to influence to wage bargain then a direct result of a positive output shock may be increased wages, which will in turn dampen the positive employment effect from the original shock. If the output shock is unanticipated and/or the firm is unsure that it is permanent, the firm increases hours of work before employment.

This pattern of worker and firm reactions to output shocks can lead to a positive correlation between real wages and hours of work, but only if workers (or 'insiders') are able to influence nominal wages and firms vary the labour utilisation rate to achieve a desired level of output. The positive, if not strictly statistically significant, relationship between real wages and hours of work, given in Table 4.2, further adds to the evidence from Table 4.1 that workers could influence wages and that firms deliberately 'managed' hours of work in France in the interwar period.

The other surprising result from Table 4.2 is that the coefficient on the real import price

Table 4.2 Demand for Hours Equations

<i>Independent Variables</i>	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>
	<i>Dependent Variable</i>		
	<i>ln (H/H^s)</i>		
Constant			-0.578 (1.02)
ln N ₋₁			-0.192
ln (W(1+t ₁)/P)			0.042 (0.96)
ln K [*]			0.358 (5.96)
ln a			-0.070 (5.82)
ln (P _m /P)			0.167 (4.43)
ln (H/H ^s) ₋₁			-0.192 (3.44)
ln (P _x /P)			-0.032 (0.72)
ln (P _x /P) ₋₁			0.150 (5.57)
z ₁			1.168 (4.45)
Δ ln H ^s			-0.129 (2.16)
\bar{R}^2			0.951
s.e.			0.010
Durbin's h			-1.265

Notes: (i), (ii), (iii), (iv) as in Table 4.1

variable is strongly positive, while that on the competitiveness variable is negative, but with only a very weak statistical significance. The demand-side effect from real import prices is completely overwhelming the factor price effect and the current price competitiveness variable as well. The overall effect of devaluation of the currency is still the same - a small negative factor price effect, but a much larger and sustained demand effect on hours of work - the only discomfort being that the variables introduced to capture the separate factor price and demand-side effects have caught the opposite effect to which they were supposed to.

The parameter estimates for Model 3 in Table 4.1 and Table 4.2 can also be used to derive firms' 'optimal' level of employment and hours. If we recall from (16) that the cross-adjustment coefficients are calculated as $-\lambda_{ij}$, $i \neq j$, and that the own-adjustment

coefficients are calculated as $\lambda_{ij}+1$, $i \neq j$, from (16), the coefficients are:

	$\ln N (\lambda_1)$	$\ln (H/H^*) (\lambda_2)$	$\Delta \ln H^*$
$\ln N (\lambda_1)$	0.591	-0.409	-0.095
$\ln (H/H^*) (\lambda_2)$	0.192	1.192	-0.129

All the coefficients are of the correct sign and magnitude. The own adjustments coefficients on employment is significantly lower than that on labour utilisation, indeed it would appear that hours of work overshoot their desired levels to compensate for disequilibrium in the firm's demand for workers. Thus firms prefer to hoard labour in response to negative product market shocks. This compensatory behaviour of the demand for hours is confirmed by the positive values for λ_{21} , which has been discussed above.

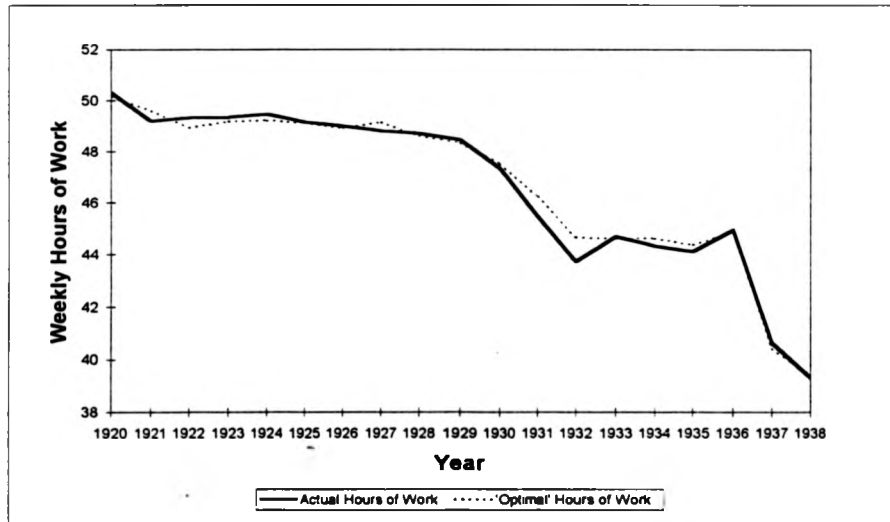
The values of the λ 's can now be substituted into equations (22) and (23), alongside current and lagged values of the endogenous variables, to reveal the 'optimal' level of workers and hours. The results are presented in Figure 4.1 and Figure 4.2.

During the economic boom of the 1920's, 'optimal' employment is seen to be greater than actual employment. Thus firms appear to have overcome the output loss from the labour shortage with an increase in hours of work over and above the 'optimal' level. This position is reversed in the mild recessions of 1921 and 1927 when external pressure on employers to limit lay-offs and the unwillingness of employers to lay-off skilled workers led to labour hoarding. The initial response to a short recession was to limit employment reductions by reducing the average working week.

Figure 4.1 Actual and 'Optimal' Employment



Figure 4.2 Actual and 'Optimal' Hours of Work



This policy is also evident during the period of rising unemployment in the early 1930s. Again, firms have sought to hoard their skilled labour with a shortened working week. The only exception to this rule occurs during the temporary economic recovery of 1933. In this year, pressure from workers ('insiders') and uncertainty over the permanence of

the recovery can be assumed to have influenced firms' decision to continue reducing employment levels, rather than increase them, and to increase hours of work above the 'optimal' level to achieve the 'optimal' level of output. In short, the fact that average hours of work were lower than their 'optimal' levels further lends support to the evidence from Chapter 3.3.1.2 that it was a conscious decision by employers to use short-time working as a means of keeping their skilled workers.

The expected response to the reduction of the working week in 1936 is worthy of comment. The 'optimal' increase in employment following the working week reduction is much greater than the actual increase. Again, this may be due to labour shortage, and authors such as Marjolin (1938) and Sauvy (1967) have argued that there was a skilled labour shortage, despite the high levels of unemployment. Indeed, the existence of a skilled labour shortage has been addressed in Chapter 3.3.3.2, but the argument was not always made for economic reasons and this was also discussed in the previous Chapter. As such, the application of the 40-hour week became the main focal point in the political battle against the Popular Front.

Given the very strong opposition to the reduction in the working week, employers would have sought to limit the hours reductions, and thus the employment creations. Indeed, Figure 4.2 shows 'actual' hours of work to be above 'optimal' hours of work in 1937. Support is therefore given to the conclusion of the previous Chapter that the short-run employment-creating potential of the 40-hour week was *deliberately* not realised by the employers' in their decision to try and delay the implementation of the hours reduction in 1937.

4.2.2 Labour Supply

The estimated versions of the models are as described in the previous section, with just one modification: an additional lag of the unemployment rate variable is introduced into the imperfectly-competitive models to account for sluggish adjustment of labour supply.

The estimation results for the various labour supply functions are presented in Table 4.3 and Table 4.4, though it is important to remember that the dependent variable differs from one model to another and, in particular, that the total labour supply is split into two categories in Model 3. Nevertheless, the overall fit of the regression is good for all three models and serial correlation does not appear to be a problem.

Model 1 adds the intertemporal substitution hypothesis to the labour supply function, though the specification of equation (34) is needed to interpret the results relating to the hypothesis. The estimate of β_1 , the elasticity of labour supply with respect to a temporary change in real wages is only 0.041, $[-(-0.035/0.849)]$, which, while being positive, is much smaller than would be expected for this model.¹⁴ The estimate of $-\beta_2$, on the other hand, is 0.113, $[-((0.041-0.058)/(1-0.849))]$, which is larger in magnitude than β_1 , and so would suggest a long-run backward-sloping, rather than vertical, labour supply curve.

The estimates of β_3 and β_4 (from the coefficient on $\ln(P^e/P_{-1}^e)$) are -0.281 and 0.071 , $[(0.060/0.849)]$, respectively, are very small and statistically insignificant from zero. The test on the restriction that they are equal yields a t-statistic of 0.302, which would

¹⁴ On a sliding scale of support for the intertemporal substitution hypothesis, Lucas and Rapping (1970) estimate β_1 to be 2.172 (table 1); Alogoskoufis (1987) finds numerous predictions for it to be around unity;

Table 4.3 (Domestic) Labour Supply Equations

Independent Variables	Model 1	Model 2		Model 3
	$\ln (N/POP_w)$	Dependent Variable $\ln (L/POP_w)$		$\ln (D/POP_w^d)$
Constant	0.122 (1.79)	-0.268 (1.97)		-0.639 (7.13)
$\ln (N/POP_w)_{-1}$	0.849 (3.58)			
$\ln (L/POP_w)_{-1}$		0.422 (4.02)		
$\ln (W(1-t_2)/P^c)$	-0.058 (0.59)	-0.019 (0.97)		-0.052 (3.28)
$\ln (W(1-t_2)/P^c)_{-1}$	-0.035 (0.26)			
r	-0.281 (0.71)			
r_{-1}	0.239			
$\ln (P^c/P_{-1}^c)$	0.060 (1.13)			
$\ln (I/(P^c \cdot POP))$	0.098 (1.35)	0.034 (2.88)		0.036 (3.28)
$\ln (I/(P^c \cdot POP))_{-1}$	-0.083			
U		-0.679 (4.26)		-0.359 (2.98)
U_{-1}		-0.030 (0.18)		-0.542 (5.32)
$\ln (B/P^c)$	-0.039 (1.74)	-0.008 (1.28)		0.001 (0.14)
$\ln (B/P^c)_{-1}$	0.033			
$\ln (H/H^s)$	0.422 (2.45)			0.193 (4.05)
$\ln (H/H^s)_{-1}$	-0.358			
\bar{R}^2	0.967	0.983		0.978
s.e.	0.011	0.005		0.006
DW Statistic				2.259
Durbin's h		1.008		
Durbin's alternative h	-1.469			

Notes: (i), (ii), (iii), (iv) as in Table 4.1

support the assumption that it is the real, rather than the nominal, interest rate that is important in determining labour supply, though the results in Table 4.3 suggest that neither were important determinants of labour supply. The implied elasticity of the supply of labour with respect to $\ln(P^c/P_{-1}^c)$ ($-\beta_4$) is -0.071, suggesting that the expected rate of inflation has a small negative effect on labour supply.

Andrews (1987) estimated β_1 to be 0.723; while Altonji (1982) finds it to be negative.

However, an incorrect sign is found on the real per capita non-wage income variable, but this is a problem found in all three models. Given the robustness of the result, it is not the intertemporal substitution hypothesis that seems to be at fault, but the unexpected movement of the aggregate supply of the labour relative to real non-wage income throughout this period.

Model 2 differs from Model 1 in that the intertemporal substitution hypothesis is dropped and that (involuntary) unemployment is catered for within this model. The consumption real wage variable now has a negative coefficient, but it is not statistically different from zero and so would be in a range of expected values as specified by Killingsworth (1983). The unemployment variables, on the other hand, are found to play a large part in explaining labour supply in this period. The discouraged worker effect of unemployment upon labour supply is particularly strong in the short run, though it appears that the real level of unemployment compensation does not act as an inducement to enter the labour market. Indeed, given the very stringent regulations governing the claims for unemployment assistance as detailed in Chapter One, this result should not be too surprising.

The final model differs from the previous two in that it investigates the participation rate of domestic workers only: the labour supply of foreign workers is modelled separately and takes a very different functional form from that of domestic workers. The other major difference is that, given that the firm may affect the labour utilisation rate in response to output changes, the labour utilisation rate may enter the labour supply function as an additional indicator of the tightness of the labour market. The under-utilisation of labour (short-time working) can also give rise to a discouraged worker

effect; any increase in future output is likely to result in the restoration of full labour utilisation ahead of the creation of new employment opportunities.

In fact, the labour utilisation variable enters the labour supply equation strongly without having any major effect on the unemployment rate variables. It can be seen as a supplementary indicator of labour market tightness. It is worth noting that the lagged unemployment rate variable also has a large negative coefficient, which would suggest that within the 'discouraged worker' phenomenon, there is a degree of waiting involved on the behalf of unemployed French workers to see if the unemployment situation is temporary or permanent. If the unemployed foreign workers are keen to return to their home country once made unemployed, rather than remain in France to see if their unemployment is transitory, the current unemployment rate variable will have a much stronger effect on total labour supply (Model 2) than on domestic labour supply (Model 3). Consequently, the lagged unemployment rate variable will be less important in determining total labour supply than domestic labour supply. This result is borne out by the parameter estimates in Table 4.3 and Table 4.4.

The strong influence of the labour utilisation and lagged unemployment variables upon the current participation rate has two effects on the rest of the regressors in Model 3: the lagged participation rate is found to be statistically insignificant in explaining the participation rate; and the negative effect of the consumption real wage upon labour supply is amplified further. Nonetheless, the model performs well in achieving the expected signs on the coefficients.

Turning to the labour supply of foreign workers, which is introduced in the full

Table 4.4 Foreign Labour Supply Equations

<i>Independent Variables</i>	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>
	<i>Dependent Variable</i>		<i>ln F</i>
Constant			2.181 (8.27)
$\ln F_{-1}$			0.703 (22.8)
$\ln (W/P^c)$			0.085 (1.14)
$\Delta \ln (W/P^c)^f$			-0.171 (3.84)
U			-2.554 (3.40)
U_{-1}			-1.710 (2.47)
U_{-1}^f			1.063 (3.95)
M^f			-3.045 (7.42)
$\Delta \ln D$			-2.872 (3.88)
\bar{R}^2			0.988
s.e.			0.003
Durbin's h			-0.924

Notes: (i), (ii), (iii), (iv) as in Table 4.1

imperfectly-competitively model only, the results of the estimation of equation (41) are presented in Table 4.4. The actual estimating equation differs slightly from (41) in that most of the 'push-pull' variables are expressed in lagged terms, partly to reflect the costly and time-consuming process of collecting information on the situation of the labour market in other countries relative to the host country.

An additional variation from the original equation is that the foreign real wage is actually expressed in terms of the growth of foreign real wages, which is done primarily for statistical reasons, though the economic interpretation is unaffected by this specification in difference terms. The current unemployment rate variable is also introduced to the estimating equation to provide consistency with respect to unemployment in both labour supply equations in Model 3.

The estimating equation appears to be very well-specified with a high goodness-of-fit statistic and with most of the variables having a significant effect upon foreign labour supply. The only exception being the consumption real wage, which has a statistically insignificant coefficient, although the finding of a positive effect on foreign labour supply is in stark contrast to its effect on domestic (or total) labour supply.

The 'foreign' variables enter strongly with the expected sign, as does the domestic unemployment rate. However, there is less evidence of a 'wait-and-see' strategy within the foreign unemployed population as compared with the domestic unemployed, though given the administrative controls on the migration of foreign workers outlined in Chapter 3.2.2, it is no surprise that unemployed foreign workers were quick to leave the labour market. Indeed, the 'discouraged worker' effect is much larger for foreign workers than domestic workers as a whole: nearly five times greater in the short-run and sixteen times greater in the long-run. Both these are in line with *a priori* expectations from Chapter Three.

It is noticeable that the demand-side variables also enter very strongly with large and statistically-significant coefficients, particularly given their relative absence in the migration literature. Given the scale of the repatriation drive in the 1930s, as outlined in the previous Chapter, the coefficient on the remigration rate variable confirms its strong effect upon the stock of foreign labour within the host country. The results from Table 4.4 also lend support to the hypothesis that the foreign workers were introduced to fill a demographic hole and that the need for such labour diminished once that hole began to narrow.

4.2.3 Wages and Prices

Only imperfectly-competitive models incorporate additional equations for wages and prices, with the price equation representing essentially no more than a mark-up over the unit costs of production. As before, the estimating equations involve only minor amendments to the functions derived earlier, which for the wage schedule is a lagging of the unemployment rate variable one period as the current unemployment rate variable is found to be highly insignificant and to have a small *positive* effect on wages.

The estimation results for the wage equation are presented in Table 4.5. The goodness-of-fit of the regression is markedly inferior to that of the other regressions outlined so far, but this is only a result of the dependant variable being expressed in difference terms. More importantly, there is no evidence of serial correlation and most of the variables are statistically significant.

There is no difference in the specification of the wage equation between the full and the reduced imperfectly-competitive models, any difference in parameter estimates is therefore a result of the specification of the remainder of the labour market model. There appears to be no difference in the effect of unemployment on wages in either model - there is a very weak downward pressure on wages from unemployment.¹⁵

This is not an unusual finding: Villa (1993) can only find a negative effect for a

¹⁵ This suggests that outsider influence was very weak in the French interwar labour market; a result that is consistent with the estimated unemployment durations in Chapter Two. Indeed, the computed ACDs from Chapter Two are added as an explanatory variable in the wage equations to capture the influence of outsiders on wages, but the parameter estimates are extremely small and statistically insignificant.

Table 4.5 Nominal Wage Equations

<i>Independent Variables</i>	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>
	<i>Dependent Variable</i>		
	$\Delta \ln W$		$\Delta \ln W$
Constant	1.737	(1.78)	2.208 (2.36)
$\Delta \ln P^c$	0.691	(6.94)	0.729 (8.49)
U_{-1}	-0.365	(0.55)	-0.088 (0.15)
$\ln (B/P^c)$	0.077	(1.92)	0.067 (1.95)
t_1	4.087	(1.07)	5.456 (2.07)
$\Delta \ln N$	0.707	(1.00)	0.702 (1.60)
$\ln H^s$	-0.317	(1.56)	-0.373 (1.94)
$\ln (W/P^c)_{-1}$	-0.398	(1.50)	-0.542 (2.65)
\bar{R}^2	0.765		0.767
s.e.	0.045		0.045
DW Statistic	1.950		2.017

Notes: (i), (ii), (iii), (iv) as in Table 4.1

differentiated unemployment variable in a very simple wage equation for the French interwar period. Similarly for Britain, Hatton (1988) is unable to find a negative influence of unemployment on wages, using the same type of wage adjustment equation as (41). Andrews (1988) thus concludes from his survey of labour market models that the rate of unemployment is a poor proxy for labour market slackness. This may account for the relatively strong effects of the growth of employment on wages and of the labour utilisation rate upon domestic labour supply.

The other variables appear to have the expected sign, but with the greater statistical significance of these variables occurring in Model 3. In particular, the last four variables in Table 4.5 have much more statistically significant coefficients in Model 3 than they do in Model 2, with the reason being the different specification of the labour demand schedule. It can be seen from Table 4.1 that the real wage, plus employer taxes, and

standard hours of work play a much greater role in Model 3 in determining the level of employment than they do in the discussion around Table 4.1. It is therefore natural that these same variables will play a greater role in affecting nominal wage growth in Model 3 than they would do in Model 2.

However, it is also noticeable that the (lagged) consumption real wage is not fully compensated by the reduction in standard hours in either model. This would be consistent with the hypothesis that the legal requirement that the hours reductions be fully-compensated overrode some of the factors that would have otherwise increased nominal wages in 1937. In years other than 1937, the increases in employer social security contribution and in employment, in particular, would have increased the 'desired' real wage of workers and thus the bargained nominal wage, but in this year employers were much more easily able to impose (or workers to accept) a large increase in nominal wages which primarily compensates for the hours reduction. Following the large wage increase of the previous year and the fundamental change in working arrangements, protracted bargaining to achieve a few extra percentage points on the wage increase was unlikely to be high on the agenda for workers in 1937. It is not, therefore, that the hours reductions were not fully-compensated, but that other wage-increasing pressures were not fulfilled in 1937.

Both models predict very similar coefficients on inflation which, while being larger than those found in the British literature for this period,¹⁶ suggest that the Phillips curve was not fully augmented during this period. An important difference between the two models

¹⁶ Comparable examples for models of British unemployment between the wars are Hatton (1988) who only found a coefficient in his 'preferred' equation of 0.228; and Beenstock and Warburton (1991) who found a much larger current inflation rate coefficient of 0.712, but which is compensated by a coefficient of

does arise, though, with regard to the estimated speed of adjustment to the 'desired' real wage: for Model 3, it would take 4 years to eradicate 95% of the original discrepancy between actual and 'desired' real wages, while for Model 2, such adjustment would take 6 years.

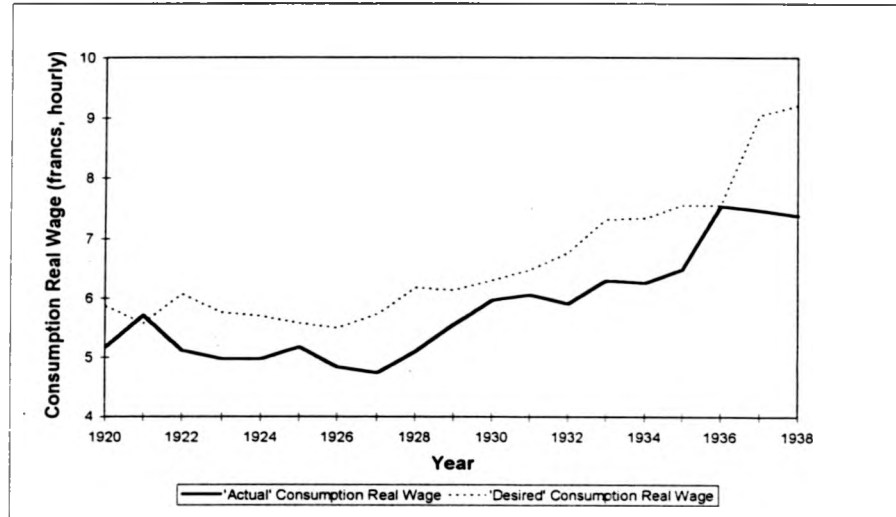
If we concentrate on the results for Model 3, the implied 'desired' real wage of workers can be derived from Table 4.5 and this is shown in Figure 4.3. It is first important to note that the workers' desired consumption real wage is significantly and consistently higher than the actual level of consumption real wages throughout the sample period.

An alternative interpretation of this relationship within the wage adjustment mechanism is of a long-run (and therefore 'equilibrium', because wage and price change are both zero) solution for real wages. Nevertheless, it would be a strange long-run, or 'equilibrium' real wage that was consistently and significantly above the actual real wage throughout the sample period. The interpretation of this relationship can only be of the desired real wage of worker (pre-wage bargain), else the implied long run or equilibrium rate of employment is consistently below the 'actual' unemployment rate in this period.

Finally, if it were assumed that workers set wages unilaterally (a monopoly union model of wage determination), then actual wages would be set to 'desired' real wages and such a relationship could be interpreted as a long-run real wage solution. However, the fact that actual wages are consistently lower than desired' real wages refutes the suggestion that although French workers were able to influence the level of nominal wages, they

-0.339 on lagged inflation rate.

Figure 4.3 Actual and 'Desired' Real Wages, 1920-1938



were able to set wages unilaterally. Indeed, one of the most noteworthy points from Figure 4.3 is the virtual equivalence of 'desired' and actual real wages in 1936. During the year of the mass sit-in strikes, the Matignon Agreement and the rise to power of the Popular Front, workers were able to achieve their 'desired' real wage, as if they were setting wages unilaterally.

The other intersection of the two series occurs in 1921 when a very sharp and unanticipated price deflation occurred (-12.4%), primarily as a result of a sharp reduction in the world prices, which increased the actual real wage to a level above the 'desired' level. It is also noticeable that the gap between 'desired' and actual real wages is larger during periods of unemployment, which would have reduced workers' bargaining power, and immediately after the wage gains of 1936, when, as Villa (1993) argues, the currency devaluation would have allowed the employer backlash to take place via increased prices and thus reduced real wages.

Turning to the determination of product prices within the imperfectly-competitive models, the estimating equation is essentially that derived earlier with the one revision: the labour productivity variable is estimated in its different form. This transformation is performed to reflect the extent to which labour productivity differs from its trend level; specification in terms of the level of productivity would have obscured the productivity effect on prices as both variables trend upwards together over the period.

As for the estimations of the price equation, there is no difference between them in their estimating form and so any differences in the size of the coefficients will again depend on the performance of the model in the other equations estimated, though for the price equation there is a much smaller divergence of the results between the two models. The goodness-of-fit statistics are good for both models, as is the finding that serial correlation is not a problem in either model.

All of the coefficients in both models are found to be of the correct sign, with only the coefficient on the labour productivity variable being statistically insignificant. Prices seem to follow a general mark-up over hourly wages and the price of other factor inputs (real import prices), which is then compensated by increases in the labour productivity, thereby reducing the unit labour cost.

Finally, it is apparent in both models that changes in aggregate demand, via their effect upon the capacity utilisation rate, have a positive effect upon prices. If this had not held true, much of the theoretical underpinning of the imperfectly-competitively models would have not been applicable to the French interwar economy.

Table 4.6 Price Equations

<i>Independent Variables</i>	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>
	<i>Dependent Variable</i>		
	ln P		ln P
Constant	-0.847	(8.72)	-0.826 (9.01)
ln P ₋₁	0.167	(1.97)	0.213 (2.77)
ln (W(1+t ₁))	0.465	(8.78)	0.453 (9.15)
ln P _m	0.146	(4.58)	0.155 (5.21)
ln CU	0.468	(3.47)	0.407 (3.36)
$\Delta \ln (Y/NH)$	-0.504	(1.57)	-0.289 (1.22)
\bar{R}^2	0.966		0.970
s.e.	0.039		0.036
Durbin's h	-1.111		-0.746

Notes: (i), (ii), (iii), (iv) as in Table 4.1

4.2.4 Evaluation of the Models

There are a number of possible criteria that could be used to evaluate the empirical performance of the three models, though we shall concentrate on only two for this exercise: the theoretical plausibility of the signs and magnitudes of the parameter estimates generated by each model and the ability of each model to explain the movement of the endogenous labour market variables throughout this period, particularly for the unemployment rate. Within these goals, there is an additional desire for parsimony.

As the next section looks to investigate the effects of various labour markets policies adopted in the 1930s via simulation analysis, the ability of each model to track the movement of the endogenous variables will be measured primarily in terms of the simulation performance of the model. Unfortunately, the market-clearing model is excluded from this type of analysis because of its assumption of no (involuntary)

unemployment: Labour supply and labour demand are measured by the same variable, employment. However, it is possible to test the performance of the model in explaining (voluntary) unemployment via the intertemporal substitution hypothesis. It is this model that we evaluate first.

Consisting of only two equations, the market-clearing model is the most parsimonious of all the models estimated, but it has already been asserted that the lack of demand-side variables in the labour demand equation has given rise to biased parameter estimates for both the real wage and the real price of imports, both of which have the wrong sign. The former aberration is a serious theoretical inconsistency. The labour supply equation is much less parsimonious, but it is considerably more successful in achieving the expected signs on the coefficients than are the other models. The major difficulty with the labour supply equation, though, is that none of the individual coefficients are significant at a 5 per cent significance level.

Leaving to one side the doubts over the performance of the individual regressors, the ability of the market-clearing model to explain (voluntary) unemployment rests solely with the intertemporal substitution hypothesis, thereby leaving the labour demand variables to have no effect on unemployment. By the intertemporal substitution hypothesis, workers will enter the labour market if real wages and prices are above their long-run, 'normal' levels, and will leave the labour market (become voluntary unemployed) if they are below their 'normal' levels.

If we recall the relationship between actual and normal prices/wages as being given by the following adaptive scheme,

$$\ln \left(\frac{W}{P^c} \right)^* = \delta \ln \left(\frac{W}{P^c} \right) + (1 - \delta) \ln \left(\frac{W}{P^c} \right)_{-1}^* + \delta'$$

$$\ln P^{c*} = \delta \ln P^c + (1 - \delta) \ln P_{-1}^{c*} + \delta''$$

the 'normal' levels of wages and prices can then be calculated using the estimated value of δ (0.102, from Table 4.3) and the trend parameters, δ' and δ'' . Lucas and Rapping (1972) provide a method of determining the values of the trend parameters such that the forecasts developed from P^{c*} and W^* come out correct *on average* over the whole sample period. It is also necessary to provide initial values for P^{c*} and W^* , so it is assumed that the actual and 'normal' prices and wages are the same in 1920.

The derived levels of 'normal' wages and prices, as well as their actual levels and the unemployment rate that they seek to explain are detailed in Table 4.7. Note that since the same reaction parameter is assumed for both the wage and price equations and that they are expressed in logs, it is possible to express the level of 'normal' wages in either real terms or nominal terms. The nominal wage series are adopted in Table 4.7.

The rise of unemployment in the first half of the 1930s appears to be well-explained by the continued fall in nominal wages and prices below their 'normal' levels. However, the reduction in this discrepancy from 1936 and then its reversal in 1937-38 is mirrored only with a slow-down in unemployment growth in 1936 and a very slow reduction in unemployment in the years 1937 and 1938, not a return to the 3% unemployment in 1937 as is predicted. This problem is identical to that encountered by Lucas and Rapping (1972) who attempted to explain the movement of unemployment in the United States in the 1930s: the model accurately predicts the collapse of employment during the depression, but cannot explain the sluggishness of the recovery thereafter.

Table 4.7 Actual and 'Normal' Wages and Prices, 1920-1938

Year	Actual Hourly Wages (francs)	Normal Hourly Wages (francs)	Actual Consumer Prices (1938=1)	Normal Consumer Prices (1938=1)	Unemployment Rate (%)
1920	2.95	2.95	0.53	0.53	3.01
1921	2.85	3.13	0.46	0.54	4.97
1922	2.63	3.24	0.45	0.54	2.84
1923	2.90	3.38	0.50	0.55	2.58
1924	3.34	3.56	0.56	0.57	2.42
1925	3.77	3.78	0.60	0.59	2.57
1926	4.26	4.05	0.79	0.64	2.36
1927	4.43	4.28	0.82	0.68	2.40
1928	4.68	4.47	0.82	0.72	2.64
1929	5.23	4.78	0.87	0.76	2.30
1930	5.64	5.10	0.88	0.79	2.46
1931	5.63	5.37	0.84	0.82	4.70
1932	5.37	5.56	0.77	0.83	7.49
1933	5.36	5.72	0.74	0.83	7.50
1934	5.29	5.84	0.71	0.83	8.46
1935	5.30	5.95	0.65	0.82	9.59
1936	6.01	6.15	0.70	0.82	9.80
1937	7.36	6.52	0.88	0.85	8.55
1938	8.66	7.04	1.00	0.89	8.72

The predictions for the 1920s are not even as good as they are for the 1930s: even though it is correctly forecast that unemployment is lower on average in the 1920s than in the 1930s, the short recession of 1921 is predicted to have lasted 3 years with unemployment peaking in 1922, and the recession of 1927 is completely missed by this model. These short recessions had particularly severe consequences in terms of unemployment, so it is a major short coming of the model not to be able to predict them.

A mitigating factor in these poor, if not uncommon, results is the very small value found for δ (0.151, from Table 4.3),¹⁷ which suggests that wage price expectations would be vary slow to adjust to expectational errors. This would explain the near linear trend

¹⁷ Comparable estimates of δ are 0.36 (Lucas and Rapping, 1970) and 0.495 (Andrews, 1987). Alogoskoufis (1987) does find a much lower prediction of δ (0.15), but this is derived from the coefficient on the next-period dependent variable in the labour supply equation, rather than on the lagged dependent

growth in 'normal' wages and prices, despite the long, and large, oscillatory movements in actual wages and prices. The overall performance of the market-clearing model is therefore not particularly good; important parameter estimates are of the wrong sign or statistically insignificant from zero and the model's ability to explain unemployment is limited only to the rise in unemployment of the early 1930s.

Turning to the imperfectly-competitively models, comparison centres on the scale of the benefits accrued from the two extra estimating equations (plus the one identity) that Model 3 possesses over Model 2. This extra equation not only affects the predictive power of the model in explaining unemployment, but also affects the parameter estimates in equations that are common to both models.

A primary example is the labour demand equation, where Model 3's assumption of the interrelations of firms' demands for worker and hours significantly improves the magnitude of the real wage elasticity of employment and also enables the equation to accurately capture the positive employment effect of the 40-hour week. Furthermore, evidence from the wage adjustment and labour demand equations suggest that Model 3's results are more in line with the prior assumption that workers are able to affect the wage bargain: they are able to transfer part of an improvement in the price competitiveness into a wage gain and achieve their 'desired' level of real wages in a much shorter period of time.

Within the labour supply equation, the additional equation of Model 3 plays an important effect upon the independent variables: differentiation between the French and foreign

variable.

workers within the aggregate labour supply function throws extra light upon the dynamic effect of unemployment upon labour supply and shows that the supply of foreign labour is determined by factors very different to those for domestic workers. In addition, the assumption that firms can alter their hours of work does provide an additional indicator of labour market slackness to the supplier of labour, the utilisation rate.

With there being very little difference between the models in the results for the price equation and with the performance of the two extra equations of Model 3 being very satisfactory, the evidence on the overall performance of the individual equations within the two models rests more favourably with full imperfectly-competitive model, though both achieve superior results to the market-clearing model.

With regard to the ability of the models to track the movement of the key labour market variables, their simulation performance over each of the endogenous variables is measured using a variety of results presented in Table 4.8. These tests measure how closely each endogenous variable tracks its corresponding historical data series. The most common measure used is the root-mean-square simulation error (RMSE) and this is reported in the first column of Table 4.8. This measure is not ideal as it is dependent upon the average size of the variable in question.

Another test statistic that does not suffer from this deficiency is Theil's inequality coefficient (T), which is reported in column two of Table 4.8, and where $0 \leq T \leq 1$.¹⁸ If $T=0$, there is a perfect fit between the actual and the stimulated values of the endogenous

¹⁸ The equality coefficient was introduced in Theil (1961), though it is the revised version found in Theil (1966) that is used in table 4.8.

variable. If $T=1$, on the other hand, then predictive performance of the model is as bad as it could possibly be. A major advantage of the inequality coefficient is that the stimulation error can be broken down into three 'proportions of inequality': the bias (T^m), variance (T^s) and covariance (T^c) proportions, where $T^m+T^s+T^c=1$.

The bias proportion gives an indication of systematic error, the variance proportion gives an indication of the ability of the model to replicate the degree of variability in the variable of interest; while the covariance proportion measures the degree of unsystematic error. Thus, for any $T>0$, the better is the performance of the model the closer the three proportions are to the values $T^m=T^s=0$ and $T^c=1$.

The results in Table 4.8 show that both models performed well in simulation analysis. While it may be difficult to attribute a 'goodness-of-fit' perspective to the RMSE values, the T statistics are extremely close to zero (a perfect fit), particularly for the hours of work and labour demand and supply equations. The predicted values of wages, prices and unemployment do not mirror their actual values to the same degree as the other endogenous variables, but it is found that their prediction errors are more the result of unsystematic error than for the other variables.

While the statistics suggest that both models are able to form good predictions of the endogenous variables, there is a noticeable difference between the two models. With the exception of the (domestic) labour supply equation,¹⁹ all the Model 3 equation simulations produce better results (lower RMSE, T) than the Model 2 simulations for the

¹⁹ The non-inclusion of a lagged dependent variable would be expected to reduce the predictive power of the simulation as important information about the previous behaviour of the endogenous variable is not used.

Table 4.8 Simulation Properties of the Models

	T	T ^M	T ^S	T ^C
<u>Labour Demand</u>				
Model 2	0.0009	0.023	0.091	0.886
Model 3	0.0005	0.044	0.007	0.949
<u>Hours of Work</u>				
Model 3	0.003	0.001	0.037	0.962
<u>Labour Supply</u>				
Model 2 (total)	0.0004	0.052	0.000	0.948
Model 3 (domestic)	0.0006	0.002	0.005	0.993
Model 3 (foreign)	0.005	0.017	0.017	0.966
<u>Wages</u>				
Model 2	0.028	0.006	0.025	0.968
Model 3	0.025	0.003	0.003	0.993
<u>Prices</u>				
Model 2	0.088	0.003	0.006	0.991
Model 3	0.083	0.002	0.002	0.996
<u>Unemployment</u>				
Model 2	0.104	0.003	0.047	0.950
Model 3	0.052	0.005	0.011	0.984

same equation. This result is particularly strong for the unemployment identity, whose simulation is the most important for this study, with the inequality between actual and simulated unemployment in Model 2 being twice the size of the inequality derived from the simulation of Model 3.

Concerning the troublesome bias and variance proportions, systematic error appears to play a part in the labour demand simulations of either model and of the labour supply simulation for Model 2. It is also important to remember that these increased proportions of systematic errors all occur within extremely small amounts of total simulation error. Simulation error as a result of unequal variances between actual and simulated variables does not appear to be a problem in any of the Model 3 equations, though it does warrant

further attention for the labour demand and (less so) the unemployment simulations of Model 2.

Having reviewed the relative merits of Models 2 and 3 in achieving expected parameter estimates and explaining the development of unemployment, it is clear that the more complex Model 3 is particularly superior to Model 2 in that the parameter estimates are much more in line with prior expectations; there is greater support for the prior assumption that workers can affect wages and the ability to track the unemployment rate over the interwar period is significantly better. Model 3 is therefore adopted for the simulation exercises of the next section.

4.3 Simulation Analysis

It was stated at the start of this chapter that an imperfectly-competitive model would be constructed alongside and tested against a market-clearing model. This has been performed, and interpretation of the regression results has lead to a rejection of the market-clearing model as an adequate characterisation of the French interwar labour market.

It was also suggested that a couple of extensions to this imperfectly-competitively model could capture the specificity of the French interwar labour market. Further interpretation of the regression results has lead to an acceptance of this postulate, and so the model deemed to best capture the workings of the French interwar labour market is essentially an augmented-imperfectly-competitive model (Model 3).

While its overall suitability for simulation analysis is confirmed in Table 4.8, further knowledge of the year-on-year ability of the model to track each endogenous variable is required if counterfactual simulations are to be undertaken. The actual and simulated values of the endogenous variables are plotted in Figure 4.4 and Figure 4.5. These figures are useful for investigating in closer detail the ability of the model to track the data, in particular for the 1930s as it is this sub-period that the counterfactuals are going to take place.

The results of the simulations on the behavioural equations are presented in Figure 4.4. The simulated level of employment can be seen from pane (a) to be a particularly good predictor of employment, thereby confirming the very low Theil T statistic of Table 4.8, though it is very difficult to see any evidence of a systematic error when the total level of error is so small. The simulated level of hours of work also tracks the actual values well, though the concerns outlined in the Data Appendix over Villa's construction of the hours of work series in the 1920s are confirmed in pane (b): the model predicts hours of work in the 1920s to be much more cyclical than Villa (1993) does in his construction of the series. This is further confirmed by the relatively high T^* statistic in Table 4.8.

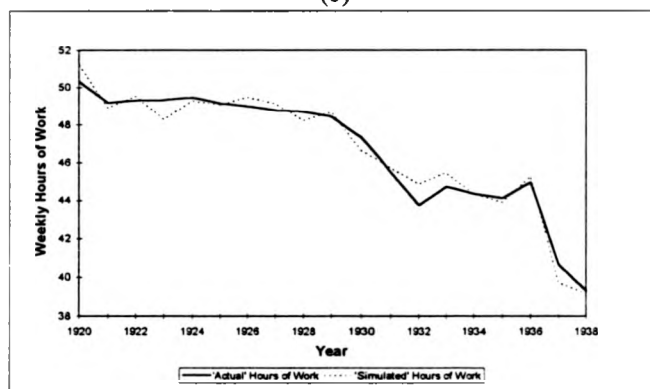
The simulated labour supplies in panes (c) and (d) also perform well, though the correlation between simulated and actual domestic labour supply in the early 1920s appears to be a little unstable. As the counterfactuals are constructed for the 1930s only, this should not present too great a problem for the simulation analysis, but is a concern overall and does contrast with the Theil U statistic in Table 4.8. The over-prediction of labour supply in 1937 is not a serious problem for the prediction of the unemployment rate as the same over-prediction occurs in the labour demand simulation.

Figure 4.4 Simulation Properties of the Endogenous Variables

(a)



(b)



(c)

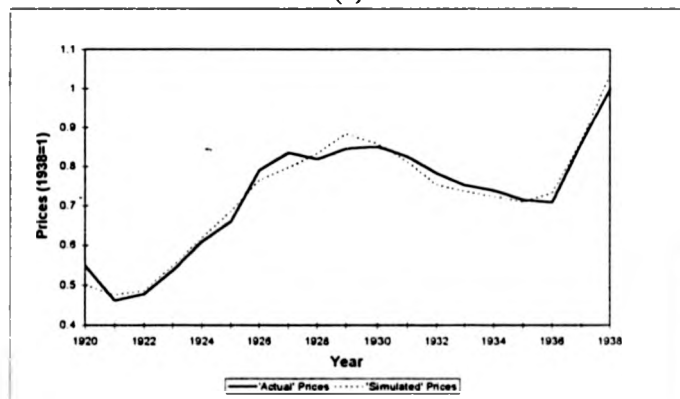
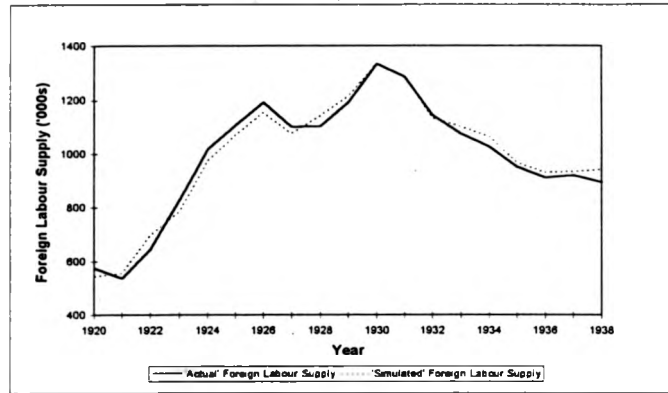
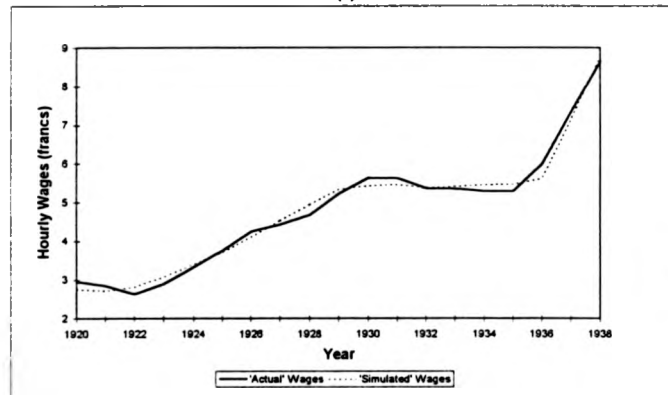


Figure 4.4 (continued)

(e)



(f)



(g)

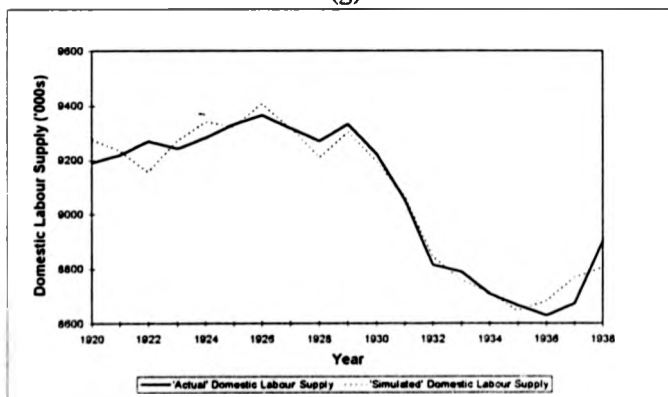
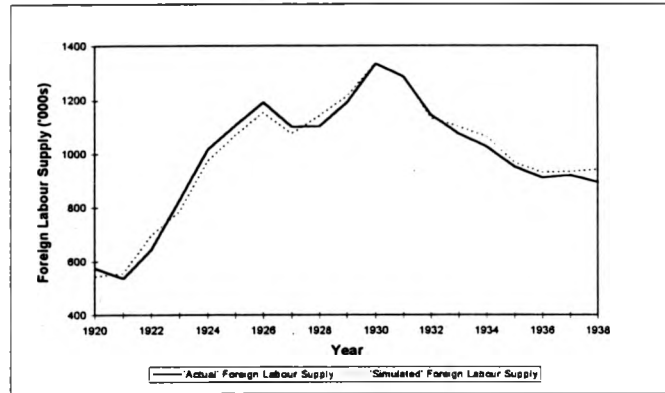
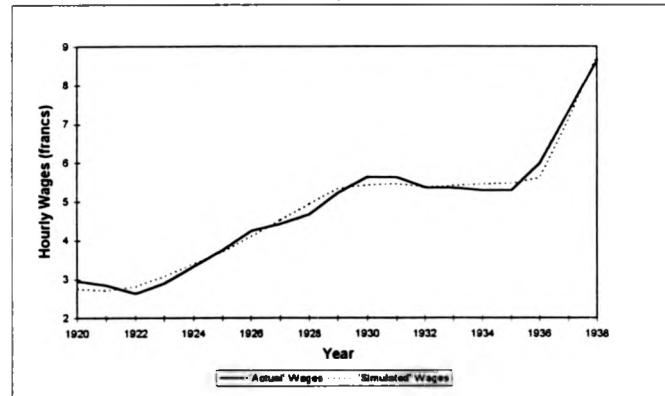


Figure 4.4 (continued)

(e)



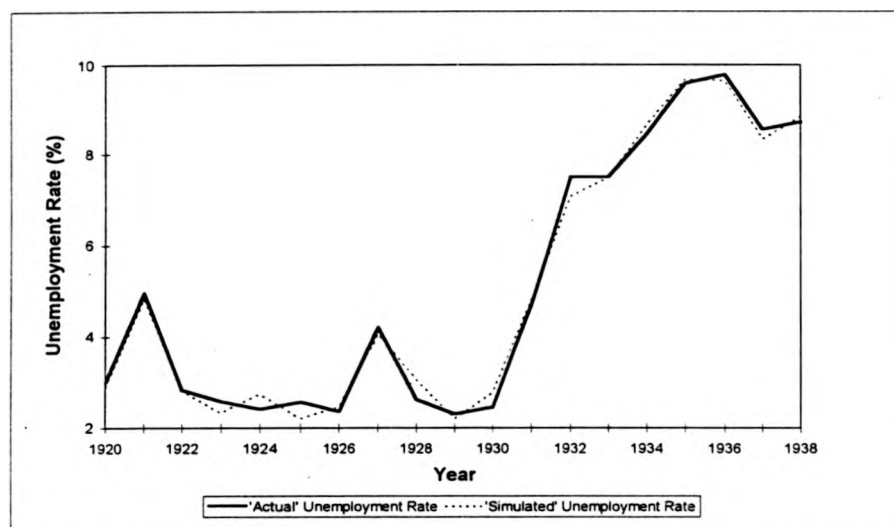
(f)



(g)



Figure 4.5 Actual and Simulated Unemployment Rate, 1920-1938



With regard to the labour supply of foreign workers, the simulated values are extremely close to the actual values. However, it is with regard to this variable that the largest systematic under- or over-prediction of the actual values takes place in the whole model: foreign labour supply is under-predicted for 4 consecutive years in the mid-1920s.

Despite the much larger Theil U statistics, the simulated levels of wages and prices, panes (e) and (f), appear to track their endogenous variables reasonably well, with only minor reservations about the prediction of the 1935/36 turning points in wages and prices. This then leaves the all-important correlation between the actual and the simulated unemployment rate, described in Figure 4.5. The divergence of simulated and actual domestic labour supply in the early 1920s leads to a similar divergence for the unemployment rate, but this is the only fault on an otherwise extremely well-predicted unemployment rate series: there is no systematic under- or over-prediction, the turning points are generally identified and the simulated unemployment rate is always within a

'one-fifth of standard error' band around actual unemployment. The simulated unemployment rate thus provides a very accurate baseline against which to investigate counterfactual simulations in the 1930s.

4.3.1 The Countercyclical Government Expenditure, 1930-1938

The first counterfactual simulation considers the effect of the increasing level of real public expenditure upon the labour market of the 1930s. The alternative scenario employed is that the ratio of government expenditure to GDP is set at 3%, its 1929 level.

This simulation differs from the study of public works programme in Chapter Three in that no financial information is available solely for the total amount of public works programmes that employed the unemployed. A possible proxy is therefore the total level of government expenditure, in real terms, which did increase in the 1930s because of the inability of governments to reduce expenditure. In line with the expenditure on public works programmes, there was a sharp reduction in 1933. The representativeness of the proxy is reduced in 1937-1938, though, when there was a large rise in real government expenditure, but this was not the case with expenditures on public works for the unemployed. The validity of the simulation results is therefore strongest for the period up to 1936.

The simulated effect of this countercyclical government expenditure upon the working of the labour market is outlined in Table 4.9. The first observation is that increases in public expenditure have no effect upon the labour market until the following year, given the presence of a single lagged government expenditure variable in the demand for

Table 4.9 The Labour Market Effects of Countercyclical Government Expenditure

	1931	1932	1933	1934	1935	1936	1937	1938
Wages (%)	0.72	2.21	3.24	2.45	1.48	2.09	2.75	3.16
Prices (%)	0.64	1.73	2.30	1.50	0.96	1.62	1.92	2.21
Real Wages (%)	0.08	0.48	0.94	0.95	0.52	0.47	0.83	0.95
Hours of Work (%)	0.65	1.53	1.81	1.07	1.14	2.19	2.35	2.76
Employment ('000s)	41.666	146.114	261.518	291.321	270.410	320.692	413.501	488.670
Domestic Labour Supply ('000s)	16.541	55.354	98.553	108.532	100.745	115.181	146.354	181.435
Foreign Labour Supply ('000s)	1.150	14.639	46.047	82.633	96.590	104.535	122.250	146.595
Total Labour Supply ('000s)	17.691	69.993	144.600	191.165	197.335	219.716	268.604	328.030
Unemployment ('000s)	-23.975	-76.121	-116.918	-100.156	-73.075	-100.076	-144.897	-160.640

Note: The figures given are relative to a base simulation with the ratio of public expenditure to GDP maintained at the 1929 level of 3%.

workers and hours equations.

The first effect of the rising public expenditure ratio is to increase real wages - the earlier premise that workers are able to capture some of the rents from increased output in the form of higher wages is confirmed - but it is noticeable that the increase in real wages does not vary directly with the increase in government expenditure, peaking in 1933-1934 before falling and returning to this height again in 1938.

The positive sign of the government expenditure coefficient in both the hours and employment equation leads to positive effects upon both hours of work and employment, the latter despite the increased real wage. In fact, the predicted employment response is quite large: the creation of over 300,00 extra jobs by 1936. This is largely in line with the predicted employment effects from the partial information of Chapter 3.1 where an average 121,000-184,000 people were estimated to have been

employed on the public works schemes in 1932 and an average of 92,000-143,000 in 1934-1936.

Naturally, the resulting reduction in unemployment leads to increases in labour supply: the 'additional worker' effect for domestic workers and an increasing attractiveness of the French labour market relative to those of other countries for foreign workers. It is further noticeable that within a few years of the adoption of a counter-cyclical government policy, the increase in labour supply comes equally from foreign sources as from domestic. These results arise from the greater elasticity of foreign labour supply with respect to the unemployment rate, but this is, in turn, only a result of the relatively finite supply of domestic labour in France at this time.

The increased supply of limits the effectiveness of the government expenditure in reducing unemployment, but the net result is still a significant reduction in unemployment, preventing the unemployment rate from rising above the 10% mark from 1934 onwards.

4.3.2 The Repatriation Drive

The second of the counterfactuals seeks to estimate the effect of the public authorities' repatriation drive of 1931-35 upon the labour market. The effectiveness of this policy was explored in Chapter 3.2.3 by analysing migration flows, the population censuses and a case study of the employment of domestic and foreign workers in Parisian firms. That analysis could only offer qualitative conclusions as to the effectiveness of the policy in reducing unemployment, though it was evident that the foreign worker policy had little

Table 4.10 The Labour Market Effects of the Repatriation Drive

	1931	1932	1933	1934	1935	1936	1937	1938
Wages (%)	0.00	0.04	0.15	0.16	0.14	0.13	0.10	0.08
Prices (%)	0.00	0.02	0.07	0.08	0.08	0.08	0.06	0.05
Real Wages (%)	0.00	0.02	0.08	0.08	0.06	0.05	0.04	0.03
Hours of Work (%)	0.00	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Employment ('000s)	0.00	-0.317	-1.447	-2.060	-2.284	-2.384	-2.176	-1.839
Domestic Labour Supply ('000s)	10.378	51.992	73.084	37.680	27.624	22.403	7.599	4.215
Foreign Labour Supply ('000s)	-45.304	-179.386	-138.745	-75.849	-74.149	-37.956	-17.999	-9.713
Total Labour Supply ('000s)	-34.926	-127.394	-65.661	-38.169	-46.525	-15.553	-10.400	-5.498
Unemployment ('000s)	-34.926	-127.077	-64.214	-36.109	-44.241	-13.169	-8.224	-3.659

Note: The figures given are relative to a base simulation with the remigration rate for 1931-1935 set at 5.13%, the mean remigration rate for the years before the repatriation drive.

effect on French unemployment, especially in the long run.

The move to a more complete quantitative assessment is possible with simulation analysis, where an alternative scenario is postulated such that the remigration rate for the period 1931-35 is set as its mean level for the years before the repatriation drive, found to be 5.1%.²⁰ In all the years during the repatriation drive, the remigration rate was above this 'normal' level, particularly in 1932 when it was nearly twice the 'norm'.

The effect of the repatriation drive upon the workings of the labour market is outlined in Table 4.10. In line with expectation, the reduction in total labour supply has the effect of raising the real wage, though the effect is not particularly large and with its one-year lag because of the inclusion of a lagged, rather than current, unemployment variable in the

²⁰ In calculating the mean 'non-repatriation-drive' remigration rate, we ignore the years 1936-1938 as the remigration rate in these years would have been influenced by the repatriation drive of previous five years.

wage equation. This rise in real wages is large enough, though, to effect a small reduction in total employment and hours of work as firms seek to lower output to meet the lower aggregate consumer demand.

With regard to foreign labour supply, the simulated reduction in foreign labour supply is large for the first two years of the repatriation drive, which largely pre-dates the law of 10 August 1932. It is further evidence that the majority of the 'displaceable' foreign workers were laid-off and left the country at the start of the economic crisis. Indeed, the move to a more constrictive immigrant policy seems to have very little effect on unemployment and by 1938 it is estimated to have had virtually no effect in reducing the number of foreign workers in France.

The long-term insignificance of the repatriation drive lies in the very large and negative coefficients upon the current and lagged unemployment rate variables in the estimated foreign labour supply equation. In the face of the very large increase in unemployment in the 1930s, particularly from 1932 onwards, the number of foreign workers returning to their home countries would have risen significantly anyway, as would the number of foreign workers entering France have fallen. These results therefore confirm those of the previous Chapter that the only effect of the repatriation drive was to merely 'speed up' the remigration process already taking place. Given its complete ineffectiveness in the long run, the financial cost in repatriating thousands of foreigners, and the political ramifications of such a policy, the overall effectiveness of the policy is further thrown in doubt by these figures.

hence their lower than average values.

4.3.3 The Decision to Remain on the Gold Standard, 1931-36

The Eichengreen and Sachs (1985) finding that the longer a country remained on the Gold Standard, the longer that country's economic crisis would continue, is a famous result and one that has shaped much of the debate on the causes of international nature of unemployment in the 1930s. It is therefore important to test the hypothesis that the decision to remain on the Gold Standard significantly increased the persistence of the French economic crisis. The counterfactual simulation is therefore run under the assumption that the Franc remained pegged to Sterling at the fixed rate of 25.5 Fr. that existed under the Gold Standard. The scale of the overvaluation of the currency relative to Sterling is apparent from this counter-factual, with 'actual' import prices being 40% lower in 1935 than they would have been if the Franc had been pegged to sterling, post-1931.

The simulated effects of remaining on the Gold Standard are presented in Table 4.11. With the real import price variable entering the equation directly, the relative overvaluation of the Franc has a direct effect on prices, and therefore wages, rather than through the channel of the unemployment rate as in the previous two examples. The effect is to make wages and prices very dependent upon the exchange rate, although the net effect upon the real wage is very small. The small positive effect on real wages is a result of the greater downward rigidity of wages than prices due to worker opposition to nominal wage cuts. It is curious that the effect of the devaluation of the Franc in late 1936 is a reduction in real wages, though this is a result that will be studied in Section 4.3.6 in detail later.

Table 4.11 The Labour Market Effects of Remaining on the Gold Standard, 1931-1936

	1931	1932	1933	1934	1935	1936	1937	1938
Wages (%)	-1.58	-8.15	-12.50	-15.90	-17.45	-15.70	-5.87	7.51
Prices (%)	-2.04	-10.09	-14.16	-17.38	-19.04	-16.57	-4.46	10.32
Real Wages (%)	0.46	1.94	1.66	1.48	1.59	0.87	-1.41	-2.81
Hours of Work (%)	-0.63	-3.38	-5.17	-5.37	-6.00	-4.89	-0.48	4.64
Employment ('000s)	-32.390	-177.310	-342.232	-504.051	-573.051	-581.698	-384.555	-32.732
Domestic Labour Supply ('000s)	-12.387	-74.200	-148.404	-190.052	-224.852	-204.498	-107.828	56.772
Foreign Labour Supply ('000s)	-1.147	-9.806	-43.533	-109.855	-159.042	-209.671	-235.703	-206.703
Total Labour Supply ('000s)	-13.534	-84.006	-191.937	-299.907	-383.894	-414.169	-343.531	-149.931
Unemployment ('000s)	18.856	93.304	150.295	204.144	190.042	167.529	41.024	-117.199

Note: The figures given are relative to a base simulation with the franc pegged to Sterling at the 1930 rate of exchange when the relative values of the currencies were fixed under the rules of the Gold Standard.

The real import price and price competitiveness variables also enter the demand for hours and workers equations directly and so the effect of the exchange rate overvaluation is also very large upon these two variables. If the Franc had been pegged to Sterling, the average working week would have returned to its full level in the brief economic recovery of 1933, while the decision to remain on Gold is predicted to have accounted for two-thirds of the reduction of average working hours from the 'standard' level in 1934 and 1935. The effect upon employment is similarly large, being much greater than the employment effect of the countercyclical public expenditure.

In similar fashion to the previous example, the resultant increase in unemployment reduces the level of both domestic and foreign labour supply. The reduction in domestic labour supply is much greater in the short run due to the enhanced 'discouraged worker' effect of the exchange rate overvaluation leading to a significant increase in short-time

working, but the greater responsiveness of the supply of foreign labour to the unemployment rate leads to the more persistent and substantial reduction in the stock of foreign workers. It is this persistence of effects upon foreign labour supply that leads to its sluggish adjustments in response to the devaluations of the Franc from 1936.

The overall effect of the decision to remain on the Gold Standard is to significantly increase the level of unemployment and this effect remains very large until 1936, as the Eichengreen and Sachs (1985) result would suggest. After similar, but opposing unemployment effects of repatriating foreign workers and increasing real government expenditure in the early 1930s, the increase in unemployment from remaining on Gold is twice the reduction in unemployment from increasing real government expenditure in the mid-1930s. By the mid-1930s, therefore, the government policies of repatriation of foreign worker and increasing real government expenditure are not enough to compensate for their unemployment-increasing policy of remaining on the Gold standard. The misdirection of government policy has left it ineffective, in sum.

4.3.4 The Increase in Real Unemployment Compensation, 1932-1936

Ever since Benjamin and Kochin (1979) put forward the controversial hypothesis that a significant proportion of the unemployment of interwar Britain could be attributed to the generosity of the unemployment compensation system, no study of interwar unemployment has been able to ignore the possible relation between unemployment compensation and the level of unemployment itself.²¹ The fourth counterfactual

²¹ Most studies of unemployment in interwar Britain now deal with this hypothesis, if only indirectly. Examples are Eichengreen (1987), Matthews (1987) and Crafts (1987), while Corbett (1991) provides a further test of the hypothesis for the German unemployment experience.

simulation therefore considers the increases in unemployment compensation in 1932 and 1936 and tests their effect upon the labour market by comparison to a counterfactual that the level of unemployment compensation was adjusted annually from 1932 in order to maintain the replacement ratio at the 1931 level (30%). By this counter-factual, until the era of the popular Front, unemployed benefits are projected to be over 40% higher than they would have been if maintenance of the replacement ratio had been the objective in setting their annual level.

The effects of this relative increase in 'real' unemployment compensation are detailed in Table 4.12. As the real level of unemployment compensation enters the wage equation directly, the increase in 'real' unemployment benefits, via an increase in workers' fall-back utility, drives up the nominal wage and, though incomplete marking-up of prices, the real wage. While the effect on the real wage is not large, it is still larger in magnitude than in any of the previous examples.

The increase in real wages does have the expected effect in reducing employment and hours of work, but the predicted effect of reducing the total supply of labour is not expected. The cause is a negative coefficient on the consumption real wage variable and an insignificant variable on the real unemployment compensation variable in the domestic labour supply equation. Indeed, the coefficients on the unemployment compensation variables are generally statistically insignificant throughout the model, a problem that is not particular to the model adopted.

With the negative effect of increased 'real' unemployment benefits on labour supply being less than their (indirect) effect upon labour demand, the net result is the expected

Table 4.12 The Labour Market Effects of Increased Unemployment Benefits, 1932-1936

	1932	1933	1934	1935	1936	1937	1938
Wages (%)	3.11	5.03	6.44	7.36	7.49	4.89	1.27
Prices (%)	1.28	2.36	3.23	3.86	4.10	3.13	1.43
Real Wages (%)	1.83	2.67	3.21	3.50	3.39	1.76	-0.16
Hours of Work (%)	-0.10	-0.32	-0.47	-0.58	-0.64	-0.57	-0.32
Employment ('000s)	-26.837	-54.992	-83.178	-103.657	-116.842	-106.095	-69.375
Domestic Labour Supply ('000s)	-16.129	-36.271	-50.953	-61.932	-66.851	-55.866	-28.718
Foreign Labour Supply ('000s)	1.976	1.299	-4.725	-11.793	-19.584	-28.263	-34.864
Total Labour Supply ('000s)	-14.153	-34.972	-55.678	-73.725	-86.435	-84.129	-63.582
Unemployment ('000s)	12.864	20.020	27.500	29.932	30.407	21.966	5.793

Note: The figures given are relative to a base simulation with the replacement ratio maintained at its 1931 level of 0.30.

positive effect upon unemployment. However, given the insignificance of the variable in explaining labour supply decisions, and the incorrect sign on the consumption real wage variable, the effect of increasing the level of unemployment benefit by over 40% is only to increase unemployment by no more than 30,000. Voluntary unemployment via search theory appears to be particularly unimportant in France between the wars.

4.3.5 The 40-Hour Week, 1937-1938

The Popular Front was elected to power in May 1936 with an economic programme that advocated the introduction of the 40-hour week, without loss of pay, as a means of reducing unemployment. The degree to which the policy achieved its objective has been a major issue of debate within the French literature and this has been critically reviewed in Chapter 3.3.4. The results from a simulation analysis at the level of the aggregate economy will therefore provide a useful complement to the results obtained in Chapter

Three.

The counterfactual simulation is that the length of standard working week remained at 48 hours in 1937 and 1938 and the results are presented in Table 4.13. The increases in hourly nominal and real wages are significant, though the 1937 figures are not as one might first expect. The predicted 6.8% increase in nominal hourly wages in 1937 is less than the 9.6% reduction in average weekly hours of work; the primary cause being the non-equivalence of the coefficients on the standard hours and lagged consumption real wage variables in the wage equation. Following the discussion around the regression for the wage equation, the increase in employers' social security contributions and employment would have increased the nominal wage had there not been a reduction in hours of work, but given that there was and that it was fully-compensated, these additional wage pressures were not realised.

The other surprising result is that the reduction in the hours in work is predicted to have had an initial negative, but small, effect on prices. Again, this may be explained by the increase in nominal wages (6.8%) being less than the reduction in average weekly hours of work (9.6%), provided at least 71% ($6.8/9.6$) of the output loss from the hours reduction is compensated by increased labour productivity. In fact, Villa (1994, p.255) calculates that 91% of the output loss of the 1937 hours reduction was compensated by the 11.7% increase in labour productivity. This rapid increase in labour productivity therefore cancelled out the increase in hourly wages to make the unit cost of production (productivity-adjusted real wage) smaller in 1937.²²

²² The rapid rise in labour productivity is in contrast to Broadberry's (1986) assertion that the fall in hours in Britain in 1919 was accompanied by a fall in labour productivity. Thus, as the fall in hours worked was accompanied as a rise in real wages and a fall in labour productivity, it 'represented the

Table 4.13 The Labour Market Effects of the 40-Hour Week, 1937-1938

	1937	1938
Wages (%)	6.79	13.22
Prices (%)	-1.22	4.24
Real Wages (%)	8.01	8.98
Hours of Work (%)	-14.26	-17.28
Employment ('000s)	74.381	23.566
Domestic Labour Supply ('000s)	31.330	-35.326
Foreign Labour Supply ('000s)	1.353	38.844
Total Labour Supply ('000s)	32.683	3.518
Unemployment ('000s)	-41.698	-20.048

Note: The figures given are relative to a base simulation with the standard hours of work maintained at 48 hours per week.

Less surprising is the prediction that hours of work would have been higher if the length of the standard working week had not been reduced: the length of the average working week would have continued to increase in 1937 and 1938, such that it would have been only one half-hour short of the full working week in 1938.

In line with the discussion around the 'optimal' levels of employment, the employment effect of the 40-hour week is positive and concentrated in the first year of its adoption, though because of the sluggish adjustment to 'optimal' levels, the positive employment effect is continued into 1938 though at a reduced level. This was predicted in Chapter Three.

The relative movement of domestic and foreign workers into the labour market following the 40-hour week is unexpected. While both groups of workers enter the

major supply shock of the interwar period'. Thus the hours reduction led to rising unemployment. The situation was different in France in 1937, though real wages rose, labour productivity rose by a larger degree. Hence, rising unemployment was not the result *à la* Britain in 1919.

labour market more in 1937 because of the hours reduction, it seems perverse that a significant number of domestic workers should leave the labour market the following year. This result appears to arise from the prediction that the labour utilisation rate in 1938 is actually higher in the 48-hour week scenario than in the 40-hour week reality, having been the opposite way around in the previous year. Thus despite the lower unemployment from the 40-hour week, the re-emergence of short-time working in 1938 leads to 'discouraged' domestic workers leaving the labour market, who are then replaced by the foreign workers who returned to France after the election of the Popular Front.²³ Despite the excessive weight that seems to be applied to the labour utilisation rate, rather than the unemployment rate, in the domestic labour supply equation, the movement of *total* labour supply is therefore very much in line with expectation.

The net effect of the 40-hour week on unemployment is small, but positive. However, as argued earlier, it is not enough to simply look at the actual levels of employment and hours of work, but also their imputed 'optimal' levels as well. Taken together, it is clear that the 40-hour week did reduce unemployment and would have done more so had employer opposition not been so strong, but whether it was the most effective of the Popular Front's actions is the question to which we now turn.

4.3.6 The Devaluation of the Franc, 1936-1938

It was shown earlier that the decision to remain on the Gold Standard at a fixed rate of exchange until 1 October 1936 had a very large negative and persistent effect upon

²³ Given the figures produced by Carlier (1985), it could be deduced that a large majority of the returning foreign workers were Algerian.

unemployment. The decision to depreciate the Franc within the Gold Standard by 30% on average and then to leave the Gold Standard altogether in June 1937 and allow it to 'float' freely in value, is therefore expected to have also had a significant effect upon unemployment. The sixth counterfactual simulation is therefore that the Franc remained on the Gold Standard at its 1935 parity with a trade-weighted basket of other currencies from 1 October 1936 onwards.²⁴ The importance of the devaluation is shown by the fact that by 1938 the value of the currency had fallen to less than 50% of its 1935 value.

The simulated effects of the devaluation of the Franc are presented in Table 4.14. As in the previous exchange rate simulation, the effect of the exchange rate depreciation has a direct effect on prices, and therefore wages, rather than through the channel of the employment rate. Wages and prices are thus quite sensitive to changes in the exchange rate, and the effect of the devaluations is predicted to be higher wages and prices to a very large degree.

It is interesting, if not counter-intuitive, that the devaluations of the franc reduced the real wage. It would have been expected that, from our 'bargaining' model of wages, workers would have been able to extract some of the rents from increased competitiveness in the form of higher (real) wages. This is not the case and the evidence provides good support to the Villa (1993) contention that the devaluation of October 1936 relaxed the demand-side constraint on prices and so allowed employers the room to

²⁴ As the other currencies against which the Franc was measured were outside the Gold Standard and therefore not fixed in value over the period 1936-1938, the counterfactual that the Franc would have remained at its 1935 level is not a completely true representation. In the sense that the value of the Franc had been declining since 1929, an alternative counterfactual would be that it continued to decline at this trend rate of decline. However, since this rate of decline had been slowing for a number of years, the counterfactual of the fixed 1935 exchange rate is an approximation of the alternative scenario that provides a lower bound upon the unemployment-reducing potential of the devaluations.

Table 4.14 The Labour Market Effects of the Devaluation of the Franc, September 1936

	1936	1937	1938
Wages (%)	0.74	10.01	24.45
Prices (%)	0.96	12.95	29.82
Real Wages (%)	-0.22	-2.94	-5.37
Hours of Work (%)	0.29	3.88	9.38
Employment ('000s)	13.123	178.735	473.066
Domestic Labour Supply ('000s)	5.369	74.745	216.567
Foreign Labour Supply ('000s)	0.323	5.977	35.928
Total Labour Supply ('000s)	5.692	80.722	252.495
Unemployment ('000s)	-7.431	-98.013	-220.571

Note: The figures given are relative to a base simulation with the franc maintained at its 1935 value relative to a trade-weighted basket of currencies.

raise prices to (at least) fully compensate for the increase in nominal wages in 1936-1938. This would explain why, in the period of the Popular Front, 1936-1938, the wage share fell in comparison to the previous three-year period and the profit share was unaffected. This would contradict many assertions about the effects of the Popular Front benefiting only the workers themselves.

With the real import price and price competitiveness variables also entering the demand for hours and workers equations directly, the effect of the exchange rate devaluations is also very large upon these two variables. If the Franc had remained at its 1935 rate of exchange within the Gold Standard, hours of work would have continued to fall dramatically with the average working week in 1938 being less than 36 hours. The effect of the devaluations upon employment is similarly large, with the increased competitiveness of the economy causing the creation of nearly half a million jobs within 2 years.

The resultant reduction in unemployment increased the level of both domestic and foreign labour supply to a significant degree, although the results for the previous exchange rate simulation suggest there may be some initial sluggishness in the increase of the supply of foreign labour due to the very large 'discouraged worker' effect within this group of workers. Nevertheless, the effect of devaluation of the Franc in 1936-1938 is to have significantly reduced unemployment.

4.4 Pooled Regression Results

The results of the previous two sections have been drawn from a dataset of annual observations for the interwar period, but as Hatton (1988, p.2) points out

"This is a major drawback since one can employ at most 19 observations on an annual basis. Once one gets beyond very simple models with two or three variables, the number of degrees of freedom becomes rather small and hypothesis tests are increasingly open to doubt."

But this is a charge that can be levelled at most of the leading empirical studies of interwar labour market, regardless of country of study.²⁵ The alternatives are very rarely found, with only Hatton (1988) and Dimsdale *et al* (1989), who both use quarterly data for Britain, and Bernanke (1986), who uses panel data for the US, being notable exceptions.²⁶

²⁵ Primary examples are Broadberry (1986), Beenstock and Warburton (1991) and Dimsdale and Horsewood (1995) for Britain; Corbett (1991, 1994) for Germany; and Villa (1993) for France. Indeed, with the exception of Villa's study, the limited number of degrees of freedom is made worse by the sample period in each of these studies starting considerably later than 1920.

²⁶ Hatton (1986) does investigate the regional and industrial structure of unemployment in Britain between the wars, using cross-section data for 1929, 1932 and 1936, but this is mainly an attempt to explain the composition of unemployment rather than its movement over time.

However, neither of these data formats can be easily applied to the French interwar labour market. Apart from the problems that arise from trying to identify the dynamic structure of estimating equations on quarterly data and the need to interpolate from annual series for rather too many key variables of interest, Villa (1994) finds that the seasonal component of the French unemployment series differed dramatically between the two periods 1920-1930 and 1931-1938. A similar investigation of the employment and hours of work series also produced the same result. The standard procedure of estimation with seasonal dummies is therefore not appropriate as the seasonality of the main endogenous variables is not time-invariant.

The alternative of using a panel dataset across industries, or regions, also poses a problem for the estimation of the model as none of the exogenous variables used in the simulation analyses can be disaggregated into either regional or industrial components.²⁷ All of the potential benefits from using the available disaggregated series of endogenous variables are therefore wiped out by this aggregation problem.

Given the problems associated with the alternatives to the dataset used earlier in this Chapter, it would be appropriate to acknowledge the statistical limitations of the previous results, as pointed out in the Hatton (1988) quote above, and look to increase their validity with the use of a different, but complementary, dataset. For this purpose, a cross-country dataset has been constructed for the interwar period from a sample of thirteen European countries, including France, and this data is used to see if the results of the previous section still hold true within the wider European labour market.

²⁷ As the application of the 40-hour week is adopted across all industries in 1937, the disaggregation to the level of industries brings no econometric benefit.

Such a cross-country interwar dataset has been used by Newell and Symons (1988) to identify the proximate international causes of the Great Depression, but the emphasis within this Thesis is upon identifying the role of domestic public policy in affecting the domestic unemployment rate during the era of mass international unemployment.

In the previous section, it was shown that domestic public policy did have a role to play in explaining the movement of the French unemployment rate throughout the course of the economic crisis. The validity of this proposition is tested using two different statistical constructs. In the first, it is tested to see if there is any correlation between the growth in national unemployment rates (from the start of the unemployment crisis in 1929 to its European peak in 1932/33)²⁸ and the growth in a number of 'public-policy-affected' variables. In the second test, a reduced-form unemployment equation is derived from the model specified earlier in this Chapter and this is estimated using the international dataset to check the ability of the 'public-policy-affected' variables to explain the movement of the domestic unemployment rates of the thirteen countries in the dataset.

4.4.1 The Growth in European Unemployment, 1929-1933

In this test a simple regression of various 'public-policy-affected' variables on the unemployment rate is performed, where both variables are measured as their percentage change between 1929 and 1933. The choice of 1933, rather than 1932, as

²⁸ The domestic unemployment rates reached their peak in five of the sample countries in 1932 and in six countries in 1933, leaving only France and the Netherlands who both experienced their unemployment peak in 1936. An alternative means of estimating the timing of the unemployment peak is by using an unweighted average of the thirteen unemployment rates in the sample - this yields a European unemployment rate which reaches 18.0% in 1932, falling slightly to 17.8% in 1933.

the end date is made to allow for the existence of any time lags in the effectiveness of public policy in coping with the zenith of unemployment.

In a very similar exercise, Eichengreen and Sachs (1985) regress the exchange rate on a number of variables, including industrial production, but not unemployment, in order to illustrate the importance of the exchange rate in determining European unemployment rates. In their study though, the variables are measured as their percentage change between 1929 and 1935, rather than 1933, "to permit depreciations as much time as possible to work their effects" (p.935). As the international competitiveness variable is partly determined by the exchange rate, an additional regression is performed to see if the choice of end date has an important bearing upon the results.

The results for these regressions are presented in Table 4.15, though it is evident from Figure 4.6, Figure 4.7 and Figure 4.8 that the spectacular growth in Belgian unemployment between 1929 and 1935 is an outlier and so the relevant regressions are repeated with a dummy variable for Belgium. The net effect is a large increase in the explanatory power of the regressions, though importantly it does not appear to significantly affect the parameter estimates for the 1929-1933 growth equations.

As noted above, the slope of the fitted line in Figure 4.6 is robust to the inclusion of the Belgium dummy variable and displays a strong negative relationship between international competitiveness and unemployment. Indeed, as shown in Table 1, this finding is also robust with respect to the choice of end date.

Table 4.15 International Unemployment Growth Equations, 1929-1933

<i>Dependent Variable: Unemployment Rate</i> <i>Independent Variable:</i>	Period	Constant term	Coefficient t on Ind't Variable	Dummy Variable (Belgium)	R ²
International Competitiveness	1929-1933	909.0 (3.31)	-5.64 (2.41)		0.11
International Competitiveness	1929-1933	779.1 (3.81)	-4.91 (2.75)	761.2 (20.9)	0.85
International Competitiveness	1929-1935	501.9 (1.48)	-1.79 (0.42)		0.01
International Competitiveness	1929-1935	677.5 (2.58)	-4.69 (1.83)	982.5 (30.2)	0.75
Public Expenditure Ratio	1929-1933	54.6 (0.50)	2.41 (2.36)		0.10
Public Expenditure Ratio	1929-1933	38.8 (0.46)	2.07 (2.61)	761.4 (21.2)	0.84

Notes:

- i) The 13 European countries in the cross-section sample are: Austria, Belgium, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Sweden, Switzerland, Sweden, UK.
- ii) White's heteroskedasticity-consistent t-ratios in parentheses.
- iii) The parameter estimates are generated by OLS estimation using EViews.

If it can be assumed that the ratio of domestic to world prices remained constant between 1929 and 1933/35, the change in international competitiveness measures purely the change in the exchange rate. Comparison is then directly possible with the Eichengreen and Sachs (1985) result that leaving the Gold Standard hastened economic recovery. This result is mirrored perfectly by Figure 4.6. The five countries that devalued in late 1931 (Britain and the Nordic countries, labelled as the 'Sterling bloc' countries) are the only ones to see an improvement in international price competitiveness in 1933 (relative to 1929) and also experience the five smallest increases in unemployment in that period, with the exception of Germany.²⁹

²⁹ However, Silverman (1988) and James (1993) do express grave reservations about the German unemployment statistics from 1933 onwards. For example, due to reclassification, unemployment fell by 619,000 in July 1933, but this can only be partly explained by the 263,000 Labour Service workers who were no longer counted as 'unemployed', but they were also not counted as 'employed' either.

Figure 4.6 Changes in Unemployment Rates and International Competitiveness, 1929-1933

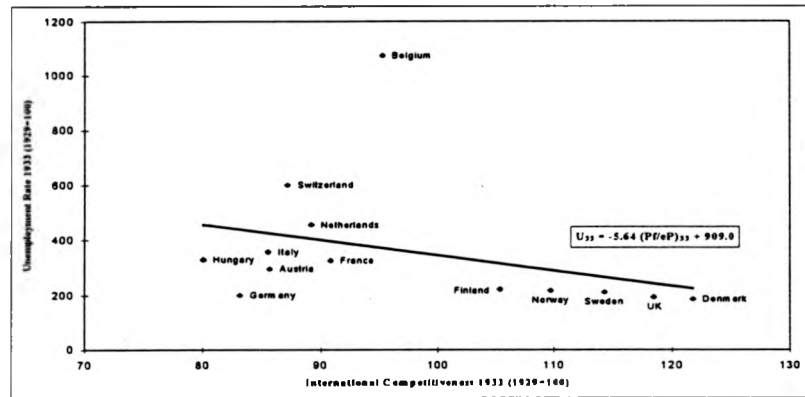


Figure 4.7 Changes in Unemployment Rates and International Competitiveness, 1929-1935

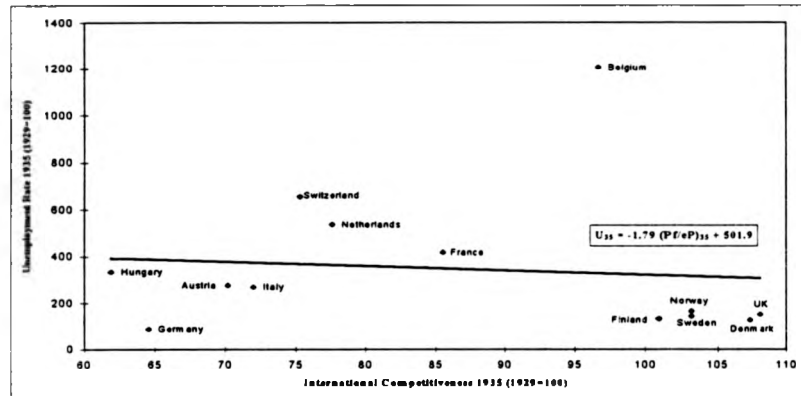
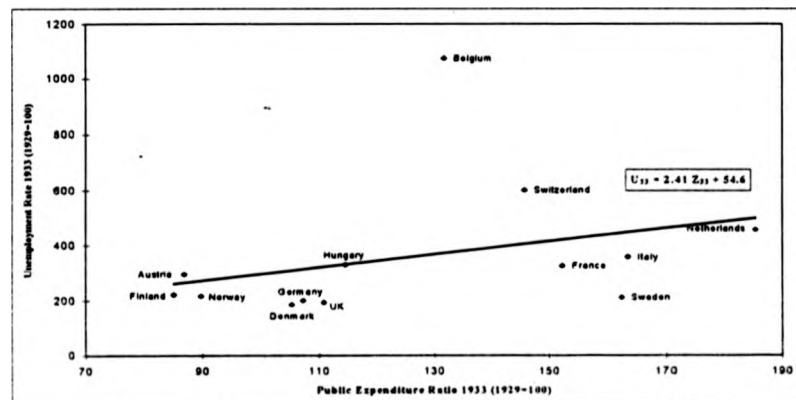


Figure 4.8 Changes in Unemployment Rates and Public Expenditure, 1929-1933



Conversely, the countries that remained committed to the full workings of the Gold Standard, the four 'Gold Bloc' countries (Belgium, France, the Netherlands and Switzerland), suffered the four largest increases in unemployment to 1933, with the exception of Italy. The remaining four countries (Germany, Italy, Hungary and Austria) all remained on the Gold Standard but imposed currency controls.

This differential unemployment behaviour is even more striking in Figure 4.7 when the end date is 1935, rather than 1933. Again with the exception of Germany, the 'Sterling bloc' countries have the best unemployment record of the European countries, and this time without exceptions, the 'Gold bloc' countries have the worst unemployment record. The 'exchange control' countries appear to have improved their relative unemployment performances by 1935, as compared to 1933. This appears to be the product of the use of exchange controls within the gold standard. It is noticeable in Figure 4.7 and Figure 4.8 that the 'exchange control' countries experienced greater deterioration in international price competitiveness than did the 'Gold Bloc' countries. As both groups were still maintaining their exchange rates at the 1929 parity, the only reason for this divergence can be that domestic prices in the 'exchange control' countries were not falling as rapidly as in the 'Gold bloc' countries. As Eichengreen (1992) points out

"There is little question that countries on the gold standard were unable to insulate themselves from the fall in international prices so long as they remained on gold" (p.232).

Compared to the experience of the 'Gold bloc' countries, the use of exchange controls must have provided a degree of insulation from these deflationary tendencies within the gold standard, thereby allowing some scope for expansionary policies without

having to worry about the consequences for the balance of payments.

The final regression equations in Table 4.15 report a positive relationship between the public expenditure ratio and unemployment. Again, Belgium is an outlier, and the result appears robust with regard to the sign and scale of the relationship. This is to be expected for simple correlation coefficients because of the automatic stabilisers in government expenditure; it does not suggest that rising levels of government expenditure cause unemployment. Instead, a multiple regression is needed to identify the causes of the fluctuations in the unemployment rate and determine whether public expenditure is one of these causes (resulting in a positive coefficient) or acting as a counter-cyclical measure that limits the volatility of these unemployment fluctuations (negative coefficient). It is to the second set of tests and multiple regression analysis of unemployment that we now turn.

4.4.2 Reduced-form Unemployment Equations

If the imperfectly-competitive model of the French labour market is re-arranged into a reduced-form unemployment equation, whereby unemployment is a function of the exogenous and pre-determined variables in the model, then this equation can be regressed on the European dataset to see if the same conclusions arise that did for the French labour market.

Data limitations prevent the reduced form equation from being estimated in full. Insufficient observations exist for the working population and non-wage income variables, though it is commonly assumed that they have no long run effect on

unemployment and also for the remigration of foreign workers variable, which, while it may not have been particularly important within the wider European labour market, prevents one of the important results of the previous section from being tested. Similarly, lack of data prevents the marginal tax rate from entering the unemployment equation, but even in the NAIRU models of Dimsdale *et al* (1989) and Dimsdale and Horsewood (1995) taxes are not identified as determinants of the natural rate of unemployment in interwar Britain. Another variable to be omitted is the real import price variable, which is seen as important in the NAIRU models, but the effect of its omission is limited as sufficient observations exist for the broadly similar international price competitiveness variable. The omission of these variables from the reduced-form unemployment equation should therefore not lead to any significant biases in the parameter estimates.

Concerning the 'foreign' variables in the foreign labour supply equation, these are reconstructed as the unweighted averages from the thirteen European countries in the sample. The adjustments to the initial series are minimal, but are now more consistent with the international nature of the regressions in this part of the chapter. However, it is decided to eliminate the 'European' real wage variable as it is very highly correlated with the real wage series for each of countries in the sample.³⁰ It would therefore merely proxy movements in the domestic real wage, which is endogenous to the model and should not play any part in a reduced form equation.

The 'European' unemployment rate variable, on the other hand, can be used to

³⁰ The correlation coefficients are at least 0.90 for all countries, except for Finland and Germany, and 0.98 for France in particular.

normalise the domestic unemployment rate. Hence, regression of the reduced form equation tests the ability of the domestic explanatory variables to explain the movement of domestic unemployment away from the Europe-wide trend. With the inclusion of year dummies to proxy secular changes in the elasticity of the domestic unemployment rate with respect to the European unemployment rate, this formulation allows us to isolate the role of domestic public policy in determining domestic unemployment, as opposed to the international causes of the unemployment crisis.

The resultant reduced-form unemployment equation is therefore of the form

$$(49) \quad \frac{U}{U^E} = f\left(\ln\left(\frac{B}{P^e}\right), \ln\left(\frac{P^f}{eP}\right), z_{-1}, \Delta \ln H^s, \ln H_{-1}^s\right)$$

where U^E is the average annual 'European' unemployment rate. The regression results are reported in Table 4.16.

As the level of unemployment benefits was observed for only three countries in the sample, two sets of results are presented. In the first column, equation (49) is regressed on annual data for three countries (France, Germany and the UK), while in the second column, it is regressed on annual data for all thirteen countries but without the level of real unemployment benefits as an explanatory variable.

The parameter estimates are fairly robust with respect to signs across the two samples and while there is some variation in their size across the two regressions, it is pleasing that most of the coefficients are statistically significant given the complete set of

Table 4.16 Reduced Form International Unemployment Equations

<i>Independent Variables</i>	<i>Dependent Variable</i>	
	(U^a/U^E)	(U^a/U^E)
$(U^a/U^E)_{-1}$		0.652 (17.2)
$\ln(B/P^c)$	0.674 (4.71)	
$\ln(P^f/eP)$	-0.232 (0.78)	-0.500 (6.97)
z_1	-0.701 (0.55)	-0.962 (4.55)
$\Delta \ln H^s$	-2.736 (2.23)	0.101 (0.14)
$\ln H^s_{-1}$	-3.348 (2.65)	-1.823 (2.68)
\bar{R}^2	0.707	0.847
n	48	209

Notes:

- i) The sample period is 1920-1938 and is across the 13 European countries listed in Table 4.15 above.
- ii) White's heteroskedasticity-consistent T-ratios in parentheses.
- iii) The parameter estimates are generated by SUR estimation using Eviews.
- iv) Year and country dummies included but not reported.

country and year dummies used in both regressions to remove any secular shifts. The lagged unemployment ratio is statistically insignificant in the first regression and so is eliminated.

Despite the failure to find a significant effect of unemployment benefits on the French unemployment rate, the result from Table 4.16 suggests that there was a strong positive international relationship between real unemployment benefits and the rate of unemployment. Of course, it is important not to overstate this result as it applies to a cross-section of only three countries and so a strong statistical relationship in one of the countries could dominate the 'pooled' coefficient. This could be the case for the UK, as Beenstock and Warburton (1986) explain more than half the rise in unemployment from 1929 to 1932 by changes in the level and administration of unemployment compensation, or it could for Germany, as Corbett (1991) does find a "high degree of correlation between measures of unemployment insurance generosity and the level of unemployment in interwar Germany" (p. 111-12). Both results though

are very contestable.³¹

The implied elasticity of unemployment with respect to real unemployment benefits (for a given 'European' unemployment rate) is not especially large. Dimsdale *et al* (1989) and Dimsdale and Horsewood (1995) find unit elasticities, while Hatton (1988) finds an elasticity of 1.5, though all of these studies use the replacement ratio as the explanatory variable rather than the real level of unemployment benefits.³² Even with a unit elasticity, though, Dimsdale *et al* find that the rise in the replacement ratio accounts for no more than one-sixth of the rise in British unemployment from 1929 to 1932. The failure to find such a strong positive relationship between unemployment benefits and unemployment in France is therefore not a major problem for the results of the previous section, where such a relationship has been found for the sample of three countries, its overall effect on unemployment is still predicted to be small.

The effect of exchange rates, and thus international price competitiveness, upon unemployment is as clear in the results of Table 4.16 as it is in those of Table 4.15 and those of the previous section. France's continued commitment to the Gold Standard produced an overvalued currency that forced the pursuit of domestic price deflation, via restrictive monetary policy, and prolonged the unemployment crisis

³¹ Dimsdale *et al* (1989) cannot find a significant effect in their wage equation of this shift in the 'burden of proof' that took place in Britain in 1930 for the unemployed. Indeed, Dimsdale and Horsewood (1995) suggest that as the administrative change coincided with the decline in import prices, it is really this that Beenstock and Warburton are capturing in their wage equation. For Germany, Corbett himself argues that the relationship between unemployment benefits and the *stock* of unemployment may be illusory as there is no such relationship between the level of benefits and the *flows* into and out of unemployment.

³² As Matthews (1987) points out, the replacement ratio can only identify the substitution effect of increases in unemployment benefits and not the income effect. A 10% increase in unemployment benefits has no effect on the replacement ratio if real wages are also increasing by 10%, but the

beyond the 1932/33 turning point for the rest of the European economy.

It is not surprising that the coefficient on the international competitiveness variable is statistically insignificant for the three-country sample as Germany is one of the member countries. As argued earlier, the use of exchange controls permitted the countries of Germany, Italy, Austria and Hungary, the economic freedom to pursue more expansionary economic policy than would have been possible in their absence due to the balance of payments constraint. Nowhere is this clearer than in Germany - Hitler's famous 'Battle for Jobs' and the manipulation of unemployment statistics (see footnote 29) reduced unemployment dramatically, even though the exchange rate remain fixed. In the three-country sample of column 1, it is this breakdown of the otherwise robust relationship between exchange rates and unemployment in Germany that produces a statistically insignificant parameter estimate. This should in no way detract from the strongly negative relationship between price competitiveness (exchange rates) and unemployment found elsewhere in this chapter.

Turning to the results for the public expenditure variable, again the positive relationship between public expenditure and unemployment that is so apparent in simple correlations is reversed in multiple regression analysis. The effect of fiscal expansion has therefore been to reduce the level of unemployment from the 'as if' (no fiscal expansion) level of unemployment.

This negative relationship between public expenditure and unemployment for the interwar period has also been found by Thomas (1981), Matthews (1989) and

recipients of unemployment benefits are 10% better off than before.

Dimsdale and Horsewood (1995), who all attempt to evaluate the potential consequences of the public works programmes proposed by Henderson and Keynes in the pamphlet "Can Lloyd George Do It". The most conservative estimate is by Horsewood and Dimsdale who estimate that the three-year programme would have increased employment by 300,000 by the third year, even with crowding out effects.

Despite the low statistical significance of the coefficient in the first column for the three-country sample, the estimated impact of a fiscal expansion is virtually the same across the two samples and of a scale consistent with the results for the French labour market: a 10 per cent increase in public expenditure in the interwar years should have reduced unemployment by about 10 per cent. This is supportive evidence for the results of previous two sections.

The only area in which the results of Table 4.16 are not supportive of the conclusions of the previous two sections is with respect to the implied unemployment effects of changing the standard working week. In the three-country sample regression, it is predicted to lead to a permanent and immediate increase in unemployment, whereas in the full sample regression, the effect of cutting the working week is predicted to lead to an initial, though minimal, reduction in unemployment, but that this would have been reversed by the following year. This dynamic structure of the effect on unemployment is more consistent with the results obtained for the French labour market, but it was still predicted to have reduced unemployment beyond the first year, though at a diminishing rate.

These results do not support those obtained earlier, but there is an important reason

why they may be seen as tentative: within the sample of thirteen countries, only France changed the length of the working week in January 1937 and Italy in October 1934. Hence, it would be very easy for the parsimonious unemployment regression to be picking up some other influence that affected the French and Italian economy in the few years after the reductions in standard hours. Such a criticism would be much harder to level at the French labour market developed in the previous sections as there are a far greater number of explanatory variables used in a simultaneous equation framework, thus the possibility of missing variable bias is much smaller.

A further problem exists with the standard hours variable itself. For countries that do not change hours it is therefore a constant, and for countries that do change it is a constant with a one-time step in value. It can therefore only aid the explanation of unemployment in France and Italy and that in a crude manner given its lack of variance.³³ The equations in Table 4.16 were therefore re-estimated using the standard hours variables for only France and Italy and deleting the year dummies (to prevent perfect collinearity). While the parameter estimates on the other variables were little changed, the standard hours variable had a negative coefficient for France (in both equations) and a positive coefficient for Italy (in the second equation).³⁴ The fact that it is negative for France only endorses the above concerns about the lack of variation in the variable and the extreme parsimony of the model in comparison to that developed for France earlier in this Chapter. The evidence of Table 4.16 is therefore not strong enough to outweigh the previous finding that the 40-hour week would have reduced unemployment.

³³ This problem is avoided in the French labour market model as the average working hours variable is normalised on the standard hours variable to produce a non-constant series for estimation.

³⁴ The change in standard hours variable was found to be statistically insignificant in both equations

In general, though, the main conclusions of the previous two Sections of this Chapter have found some support from the regressions on this international panel dataset. This result does hold stronger for the government expenditure and exchange rate results, but the exercise has provided a useful insight into the workings of the European-wide labour market as well as attempting to increase confidence in the results obtained earlier.

4.5 Conclusions

This chapter has attempted to estimate an econometric model of the French interwar labour market. It has not been assumed *a priori* that the labour market does not clear or that unemployment was voluntary, two imperfectly-competitively models of the labour market have been developed and tested against a model within the market-clearing approach.

The results have shown that the French labour market did not clear in the 1920s and 1930s, with only the rise in unemployment in the early 1930s being consistent with the assumption of voluntary unemployment. This begs the question as to whether this unemployment was indeed voluntary, a result that would astound many a French economic historian. But no. If, as the results for the imperfectly-competitive models show, wages and prices are negatively affected by unemployment and aggregate demand, then in periods of increasing unemployment, wages and prices would be predicted to fall below their normal levels anyway. In that sense, the intertemporal

and so was deleted.

substitution explanation of unemployment is simply a 'discouraged worker' effect on labour supply and no more.

Within the imperfectly-competitive model, it is found that the addition of the two extra equations, for average hours of work and foreign labour supply, that taken into account two of the key public policies studies in the previous Chapter, do significantly add to the predictive powers of the model and are therefore incorporated into the model to cover the specificity of the French interwar labour market. Indeed the need to model domestic and foreign workers separately is confirmed by the successful modelling of foreign labour supply in terms of migration variables only.

Given the regression and simulation results for the full imperfectly-competitive model, the ability of the model to predict the labour market effects of government policies in the 1930s has been central to this chapter. In most respects, the results are in line with those of the previous chapter, though the magnitude of the effect upon unemployment has been easier to predict.

Concerning the two key public policies of the early 1930s, the effects on unemployment were rather different. The short-run effect of the repatriation drive was an acceleration of the remigration of foreign workers, which temporarily reduced unemployment, but the longer-run effects on the labour market were negligible, even on the stock of foreign workers resident in France. The unsuccessful nature of this much publicised government policy is not shared by the effects of increasing real government expenditure throughout the 1930s. It should be remembered firstly that the real government expenditure variable is representative of the expenditure on public works programmes only for the years up to

1936. Hence for that period, it can be concluded that the policy was not so effective as to significantly reduce unemployment, but it did limit the growth of unemployment.

The government policy that does seem to have had the largest effect upon the labour market in the 1930s was one which was not targeted at the labour market: the exchange rate policy. The decision to remain on the Gold Standard at the pre-crisis rate of exchange is found to explain up to a quarter of the total level of unemployment before 1936, whereas the subsequent decisions to devalue the currency from 1936 onwards prevented the unemployment rate from continuing to rise until the Second World War.

Indeed the exchange rate policy is found to be the most successful of the Popular Front's economic policies to reduce unemployment, even if it was not a deliberate and predetermined policy. The 40-hour week is also found to have aided the reduction in unemployment from 1936, though by only a limited degree. The economic policies of the Popular Front are usually condemned as failures. It is true that its most effective policy was one which it was reluctant to adopt, but the success of the Popular Front in containing and reversing the increase in unemployment does contrast very sharply with the overall ineffectiveness of government policy in tackling unemployment before 1936.

The results from this quantitative analysis of the French labour market have been based on fragile statistical foundations. The degrees of freedom of the regressions are low and a cause for concern. Nevertheless, it is a cause for concern for almost all quantitative analyses of labour markets in the interwar years, although the problem is rarely recognised, let alone addressed. An alternative quantitative analysis has been carried out on a panel dataset. However, the limitations of this dataset prevented an analysis of all

the policies outlined in this Chapter, but the results are generally supportive of those obtained using time-series French data. It is a small vote of confidence in the results outlined above.

These concerns apart, the final verdict on French unemployment in the 1930s is that the potential effectiveness of government policy was fairly large: the withdrawal from the Gold Standard in 1931 alone could have reduced unemployment by up to a quarter. However, the external constraints of employer opposition and the internal constraints of lack of policy co-ordination rendered much of the policies to reduce unemployment ineffective in aggregate.

4.6 Data Appendix

The time-series data used for the estimation and simulations in Chapter Four are annual data on the period 1919-1939, for which the primary source is Villa (1993). If any alterations have been made to the Villa dataset these are highlighted in the discussion around the variable in question, and if the data source is other than the Villa dataset, this is also highlighted. For the Villa dataset variables, the actual variable name used in Villa (1993) is also provided in bold and boxed in brackets.

For the panel data used as a 'check' on the results obtained on the time-series data, the variables and sources are detailed at the end of this Appendix.

The time-series labour market data pertain to the aggregate economy-wide labour market, that is, it is inclusive of the agricultural, industrial and service sectors. As far as the economic agents under investigation are concerned, the data on employment and wages, for example, pertain only to wage-earners and not employers. Given the requirements outlined in Chapter One for entitlement to unemployment assistance and thus for recognition as unemployed, it is consistent to model unemployment in terms of wage earners only. Consequently, labour supply is also in terms of wage earners only.

The data definitions in alphabetical order are as follows:

- a Labour-augmenting technical progress. Calculated using the following procedure: starting with a simple value added production function
 $Y = F(aN, K)$
 which is then expressed in logs and differenced, we find that
 $\Delta \ln Y = (1 - v_k)(\Delta \ln N + \Delta \ln a) + v_k \ln K$

where v_k is the share of the capital, which can then be re-arranged to give

$$\Delta \ln a = (\Delta \ln Y - (1 - v_k) \Delta \ln N - v_k \Delta \ln K) / (1 - v_k)$$

yielding the series for a , for any given initial value.

- B Daily Unemployment Compensation. Calculated for a 'typical' family of two adults and two children, as in Benjamin and Kochin (1979). [Source: *Bulletin du Marché du Travail*].
- CU Capacity Utilisation Rate. [TUQ].
- D Domestic wage earning labour supply. Calculated as L-F.
- F Foreign Labour Supply. Obtained from the population census data, with interpolation performed using the annual net migration flows. Any discrepancy between actual change in foreign labour supply and the predicted change from net migration flows in the intervening years is uniformly distributed across the years between the censuses.
- H Average hours of work per week. [DHE]. It was not the primary goal of the Villa macro-model to explain labour market behaviour with reference to hours of work, hence his interpolations of hours of work between the years 1913, 1924, and 1929 are maybe not as representative as one might hope. He predicts a near linear reduction of hours of work in the 1920s with very little cyclical variation within that trend. This is not the case from 1930 onwards as the *Inspecteurs du Travail* provide an average hours of work series and so there is no further need to interpolate. The movement of hours of work in the 1930s is very cyclical and the reports of the Prefect for the Isère *département* suggest that hours of work were equally cyclical in the period 1927-1930. (A.N., F⁷ 13525, none of the other Prefects maintained their observations of hours of work after the recession of 1927). However, as there is no source currently available with which to offer alternative interpolations for the whole of the 1920s, the Villa series is adopted in full.
- H^s 'Standard' (or legal) working week, in hours. [Source: *Bulletin du Marché du Travail*].
- I Total value of interests and dividends received by households. [IDVM].
- K Total capital stock at year end. [KZE].
- K* Total capital services. Calculated as the product of the total capital stock (K) and the capacity utilisation rate (CU). It is therefore measures the total capital stock actually in productive use.
- L Total wage earning labour supply. Calculated as N+Un.
- N Number of wage earners employed. [NSE, NSM, NSF]. The Villa series is corrected for the year 1928 where it is predicted that employment fell, but this is a finding not supported by the statistical sources he cites. To illustrate, if we define the total level of wages paid by employers as the product of wage earners employed [NSE], average weekly hours of work [DHE], the hourly nominal wage [WHPE] and 52 (the number of working weeks in a year, 50 from 1936), there is a constant relationship between this product and the Villa variable for the total level of wages paid by employers [SALE], except for the years 1928 when it undershoots by 11%. The Villa dataset therefore also confirms the inaccuracy of the 1928 value for the 'employment of wage

earners' variable. Bearing in mind the need to increase the product of employment and hourly wages by 11% in 1928 (assuming the hours value is correct), the 1928 number of wage-earners employed is derived by interpolation between 1927 and 1929 using the industrial production series [IP].

- M^f Remigration Rate. Calculated as the ratio of involuntary repatriation and voluntary departures to the foreign population resident in France, where the foreign population is given by the census figures and interpolated using the foreign labour supply series. [Source: *Bulletin du Marché du Travail*].
- P The GDP price deflator. Set as an index with base 1 in 1938. [PIBQ].
- P^c Consumer Price level. Calculated as $P^*(1+t_3)$.
- P^{cf} Foreign Consumer Price level. Calculated using annual weighted country averages as for the foreign nominal wage, but renormalised to base 1 in 1938 for comparison with the domestic consumer price level.
- P_m Price of imports. Set as an index with base 1 in 1938. [PIM].
- P_x Foreign prices. Calculated as weighted index of prices in Belgium, Britain, Italy, Germany, Switzerland and the USA, where the weights are derived from the volume of French exports to each country. Set as an index with base 1 in 1938. [PETX].
- POP Total population in mid-year. [POP].
- POP_w Population of working age (15-64). Calculated as $POP \cdot \text{age}\%$, where $\text{age}\%$ is the proportion of the population aged between 15 and 64 years. The variable $\text{age}\%$ is obtained from the population census data, with interpolation between the census being performed using a linear time trend.
- POP^d Domestic Population in mid-year. Calculated from census observations with linear trend of domestic-foreign population ratio on (POP) for inter-census years.
- POP_w^d Domestic Population of working age (15-64). Calculated as $POP^d \cdot \text{age}\%$, where the proportion of the population aged between 15 and 64 years ($\text{age}\%$) is assumed not to vary from total population to domestic population.
- r Rate of return on private sector debentures. [TXOB].
- t_1 The rate of employers' social security contributions. Calculated as the ratio of total employer social security contributions [CSE] to the total level of wages paid by employers [SALE].
- t_2 Direct tax rate on employees. Calculated as the sum of the income tax rate (t_{21}) and the rate of employees' social security contributions (t_{22}). t_{21} is, in turn, calculated as the ratio of direct tax receipts from households [TAXDM] to the total level of wages paid by employers [SALE], while t_{22} is calculated as the ratio of total employees' social security contributions [CSM] to the total level of wages paid by employers [SALE].
- t_3 Indirect tax rate. Calculated as the ratio of indirect tax receipts from households [TAXIM] to total consumption of households [CZM].
- U Unemployment Rate. Calculated as U_n/L .

- U^f Foreign Unemployment Rate. Calculated using annual weighted country averages as for the foreign nominal wage.
- Un Number of persons unemployed (annual average). Villa uses the *sans emploi* unemployed from the censuses and then interpolates using the *demandes d'emploi* series for the 1920s and 1930s separately. This allows for the differing representativeness of the series when there was very low unemployment in the 1920s and high unemployment in the 1930s [PDRE].
- W Hourly nominal wage. [WHPE]. The Villa series is corrected for the year 1928 where it is wrongly printed in his book (confirmed in private correspondence).
- W^f Foreign hourly nominal wage. Calculated as a weighted average of the hourly nominal wage in the countries of origin of the ten leading nationalities of foreign workers in France in the interwar period: Belgians, Britons, Czechoslovaks, Germans, Hungarians, Italians, Poles, Rumanians, Swiss, and Yugoslavs. The annual weights are derived from the proportion of total foreign workers being of each nationality [Source: Mitchell (1980)]
- Y Gross Domestic Product, in real terms. [PIBZQ].
- z Ratio of Public Expenditure to GDP. [z].

The International Dataset:

The dataset comprises of thirteen European countries: Austria, Belgium, Denmark, Finland, France, Germany, Hungary, Italy, the Netherlands, Norway, Sweden, Switzerland and the UK. The sample period is 1919-1938 for all countries except those that experienced hyperinflation in the early 1920s. The starting dates for these countries are 1923 for Austria, 1924 for Germany and 1925 for Hungary.

All series are taken from Mitchell (1980) and Newell (1985, 1986) unless otherwise stated.

- U Unemployment Rate.
- U^E 'European' Unemployment Rate. Constructed as an unweighted average of the available annual unemployment rate series.
- B Weekly level of unemployment benefit for a two-adult, two-child family. The series for Germany and the UK are from Corbett (1991) and for France new benefit rates are published in the *Bulletin du Marché du Travail*.
- P^c Consumer Prices.
- P^f World Price of Traded Manufactures. (Lewis, 1962, Table II)
- e Exchange Rate. To maintain a stable yardstick against which to measure exchange rates, the 'dollar-domestic currency ratio (relative to par value)' is

used for the period 1920-1930, followed by the 'percentage change from gold parity in 1929' for the period 1931-1938. Both series are published in the League of Nations Statistical Yearbooks during the interwar years.

P Wholesale Prices.

G Total Central Government Expenditure.

GDP National Account Totals.

z G/GDP .

H^s Standard Hours of Work. Legislative measures to change the length of the working week are reported in the International Labour Review during the interwar years.

SUMMARY AND CONCLUSIONS

The main objective of this Thesis has been to discuss and analyse the effectiveness of a number of key public policies introduced in France in an attempt to reduce the level of unemployment in the interwar years. But the identification of the nature of the problem at hand is a pre-requisite for any remedial action to be efficient, so a large section of this Thesis has also sought to identify the nature and the structure of French unemployment in this period.

This descriptive work has had two objectives in itself: (i) to identify those sub-groups of the population and those regions and industries of the economy which were particularly adversely affected by unemployment and so to whom public policy should have been targeted; and (ii) to counter the myth that French unemployment between the wars was inconsequential. This myth has persisted due to a lack of information on French unemployment other than the aggregate unemployment rate which, as we have highlighted in Chapter One, was constructed upon rather dubious statistical grounds, at least for the purposes of international comparison.

The unravelling of unemployment in Chapter Two has only served to further highlight the shortcomings of any judgements or prescriptions based solely on the aggregate unemployment rate. That the incidence and the duration of unemployment differed according to the age and the sex of the individual is a common finding, but the very large variation in unemployment across industries and across regions is as significant in France as in any other country considered in this Thesis. The extreme variation in

unemployment across regions and across industries applies to both unemployment incidence and unemployment duration. These signs of a very strong structural element to unemployment were important issues that needed to be addressed by public policy.

It is certainly true that active public policies were introduced in France in the 1930s in particular as a means of combating the rise of unemployment. The policies concerned and the difficulties encountered in their implementation have been considered in Chapter Three. While the public works programmes and the foreign worker policies of the 1931-1936 period can be said to have targeted particularly unemployment-affected sub-groups of the population - the unskilled, construction workers and foreigners - the 40-hour week of the Popular Front government could not address the structural elements in unemployment that were highlighted in Chapter Two as it was introduced almost uniformly throughout industry and commerce.

However, the identification of the target groups is less a priority if the warning of Schwarz (1993) is to be heeded:

"The historian of French economic policy during the 1930s needs to be particularly careful to distinguish rhetoric from reality. The difference between the two was glaring, even by the standards of the Third Republic" (p.110).

There was indeed a very large difference between the grand plans of large-scale public works and their final form once budgetary considerations had been made. In similar fashion, there was also a very large difference between the declared intentions of the government in 1934 to remove the 800,000 foreigners from their jobs and their legislative measures to do so.

But if the difference between rhetoric and reality is an important consideration, then so is the difference between the passing of the legislation and its implementation. Where it is the government that is implementing the legislation, such as in the administrative regulation of the foreigner, then it is merely rhetoric versus reality. But where the implementation of legislation is actively blocked by outside agents, such as employers, then it is more than just a simple distinction between what is desired and what is achieved. The effectiveness of any public policy is dependent upon the relevant agents according in accordance with it, rather than against it. The economic success of a particular policy becomes determined not by its economic content, but by the battle of political power amongst those agents involved in the construction and implementation of that policy. Chapter Three therefore offers far greater insights into the possible effectiveness of public policies of the 1930s than does the simple statistical approach of Chapter Four.

The advantage of the statistical approach though is that it is the content of the policy that is implemented, as opposed to the political battle that took place before it, that has the effect upon the economy and upon unemployment. Despite the manoeuvrings and the obstacles created by the employers in delaying the implementation of the law for the 40-hour week, it is the fact that it was implemented as such that necessitated the additional employment of 1937. The political battle between employers and the unions/government over its implementation only serves to limit the effectiveness of the policy and ensure that its implementation was only temporary.

The very different methodologies of Chapters Three and Four can, from this example, be seen to complement each other and form a view of the wider processes at work that

neither is able to attain on its own. The mix of statistical and archival methodologies may seem strange, but it appears to be warranted in the sphere of public policy.

The existence of opposing forces battling over the implementation of public policy does not appear to be conducive to an effective outcome of that policy. Indeed, the public policy measures outlined in Chapter Three were predicted to have had a reasonably limited effect on employment, and thus an even smaller effect on unemployment. These predictions are borne out by the results of Chapter Four. The merely short-term gains of the foreign worker and 40-hour week policies is confirmed, while the policy deemed in Chapter Three to have been the most successful in reducing unemployment, the public works programme, is also found to have the same (relative) result in Chapter Four. However, it is with respect to the public works programmes that the limitations of the statistical approach are most evident: a failure to measure statistically the importance of the public works programmes against unemployment as opposed to the importance of government spending in general.

One final note. This Thesis has not concerned itself with the *causes* of the unemployment crisis in France in the 1930s, merely the responses to it. However, the results of Chapter Four do suggest that one element of government economic policy in the 1930s, the adherence to the Gold Standard, did contribute to the persistence of the crisis and as such negated the unemployment-reducing potential of the public policies studied in this Thesis. Hindsight is easy, but the contradictory nature of the governments' economic policies was not understood at the time and it severely limited the ability of the above public policies to reduce unemployment.

6. References

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